

# The Analysts Journal

VOLUME 15 : NUMBER 2



MAY 1959

Security Index

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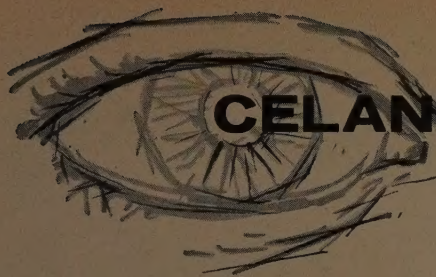
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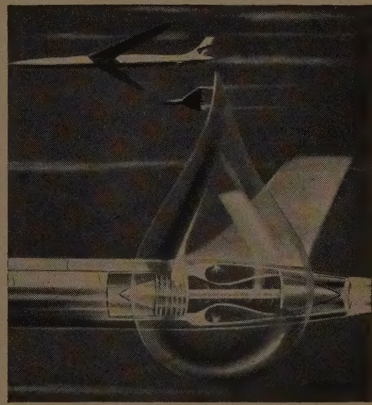
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# Highlights from GULF OIL'S 1958 REPORT

Gulf Oil's 58th year was marked by record activities in all major departments. World-wide oil production was up 13%, refinery runs 2%, and refined product sales 8%.

Net income was \$329 million, the second highest in the Company's history. Gulf's working capital showed a substantial improvement over the previous year notwithstanding the lower earnings and the continuation of heavy capital expenditures.

The financial and operating highlights from the Gulf 1958 report are presented here.

## CONSOLIDATED FINANCIAL DATA

	1958	1957
Net Income .....	\$ 329,533,000	\$ 354,284,000
Net Income Per Share (based on shares at end of 1958) .....	\$10.17	\$10.94
Cash Dividends Paid .....	\$ 77,716,000	\$ 73,823,000
Cash Dividends Paid Per Share .....	\$ 2.50	\$ 2.50
Stock Dividends Paid .....	4%	5%
Total Assets .....	\$3,430,019,000	\$3,240,571,000
Working Capital .....	\$ 565,498,000	\$ 450,051,000
Net Sales and Other Operating Revenues .....	\$2,769,377,000	\$2,730,085,000
Capital Expenditures .....	\$ 401,245,000	\$ 546,453,000
Depreciation, Depletion, etc. ....	\$ 261,165,000	\$ 252,265,000

## OPERATIONS DATA—DAILY AVERAGE BARRELS

(Includes Gulf's equity in companies less than 100% owned)

	1958	1957
Gross Crude Oil, Condensate, & Natural Gas Liquids Produced .....	1,396,782	1,253,775
Net Crude Oil, Condensate, & Natural Gas Liquids Produced .....	1,298,869	1,151,438
Crude Oil Processed at Refineries .....	698,133	682,215
Refined Products Sold .....	806,699	747,198
Natural Gas Liquids Sold .....	110,169	106,301

(A limited number of copies of Gulf's report is available to customers.  
Write to Room 1300, P. O. Box 1166, Pittsburgh 30, Pa.)



# The Analysts Journal

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VOLUME 15

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NUMBER 2

## June's Montreal Convention

Communication is the diamond-studded tool of Financial Analysts. And while we know that this "tool" is effectively used through the medium of the printed word (in *The Analysts Journal* and elsewhere), nothing will ever replace personal contacts.

And an ideal spot for verbal communication and personal contacts is our Annual Convention. Within reason, nothing should prevent any member's attendance. It's a once-a-year opportunity of amassing a great deal of information within a few days.

Much time and effort has gone into this year's Convention. For instance, this is the first time we've gone "foreign" (although actually none of us think of Canada as a foreign country, *per se*). Still, our gracious neighbors to the North are making it possible for us to see that financial institutions are rather the same everywhere.

Forums, discussions and speeches, of course, will be the order-of-the-day. But there will be field trips, on ship and ashore, that will enable all of us to understand each other much better. And when we return to our respective abodes it's for certain that we'll remember this year's Convention as a high-light of 1959.

Then, we like to believe—as the Analysts trek to the Annual Convention—that there's more on their minds than just business, for nothing can replace good fellowship.

But whether it's business or good fellowship—or a

happy blending of the two—we hope that this year's registration will reach an all-time high.

Our host, The Montreal Institute of Investment Analysts, has prepared a splendid program (see page 49) for the June 15-18 meeting. And if you haven't already circled the dates on your calendar, there's still time. Do it now! It's a *must*.

See you in Montreal.

~ ~ ~

## Books by Member Analysts

It is always a delight, on receiving a new book, to discover (through the pages of our Directory) that the author is a member of one of the 22 Analyst Societies, here and in Canada, which comprise the National Federation.

Such a delight was ours again this month when we received a book authored by a member of *The Washington Society of Investment Analysts*, Harry Kahn, Jr. (See Book Reviews). And also in this issue's "reviews," so to speak, of time-tested books are the names of three more Analyst-member authors: Robert D. Merritt of *The Boston Security Analysts Society*; and G. M. Loeb and John H. Prime, both of *The New York Society of Security Analysts*.

As we scan new book titles from month-to-month and seek more author background, we'll hope that each of our 22 Societies will have additional members in Publishers' Row.

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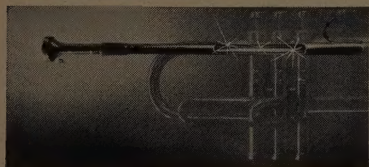
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how metals from  
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 make sweet music for you



**ALSO ELECTROFORMED** with "Plus-4" Anodes are the bells of Conn instruments. This seamless unit-method of construction gives still further control of entire tone chamber. Bells have same density throughout—increased resonance produces live, powerful tone.



**CUT-AWAY VIEW** of tone chamber shows "micro-finish" of interior surface. Another cost and quality advantage: by acid-copper electro-deposition, both chamber and mouthpipe are made as a single part. They were formerly made as two pieces of sheet metal and soldered together.

True, vibrant tone of cornets, trumpets, and trombones depends largely on the inside shape and finish of their tone chambers.

A pioneer in improving tonal quality since 1875, C. G. Conn, Ltd., makes many of the wind instruments used by professional musicians as well as America's thousands of amateur bands and orchestras.

Conn has found that better tone results when mouthpipes (or tone chambers) are made of copper—built up electrolytically on removable precision forms, using "Plus-4"® Phosphorized Copper Anodes. Mouthpipes produced this way have consistent dimensional accuracy to millionths of an inch—and without the further finishing required when these particular parts were shaped from tube or sheet.

Other industries depend on "Plus-4" Anodes for the production of intricately shaped precision parts, among them microwave components of extreme interior complexity.

"Plus-4" Anodes, one of many developments Anaconda has pioneered, demonstrate what Anaconda research is always striving for in the whole nonferrous metal field: New ways to do things better—more value for less money—in home and industry.

59172 A

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# EAGLE-PICHER

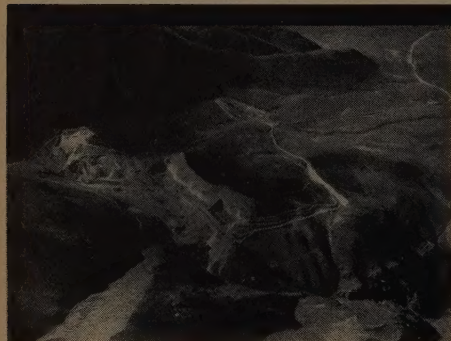
## Manufacturer's Manufacturer



Eagle-Picher purchased Ohio Rubber Company in 1952 with plants in Ohio, Pennsylvania and California.



Chemical compounds from lead and zinc are among Eagle-Picher's hundreds of products. (Joplin, Missouri Plants)



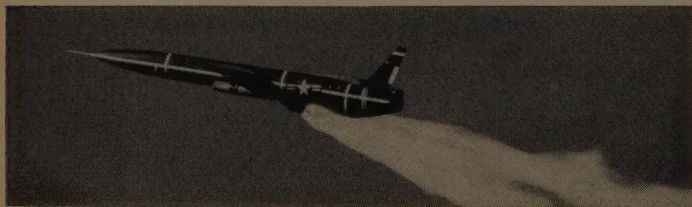
Mountain of diatomaceous earth being mined by Eagle-Picher in Nevada.



Free-flowing fertilizer made with Celatom (diatomaceous earth).

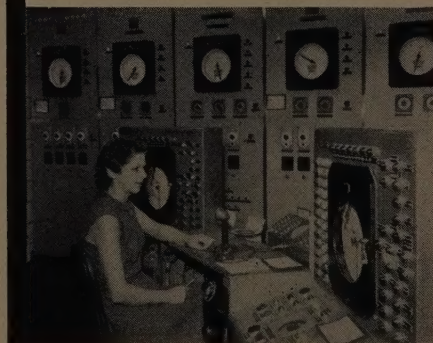


Pre-fab Lusterlite service stations made by Chicago Vitreous.



Special Purpose Batteries developed by Eagle-Picher power the electrical systems of guided missiles and rockets.

Automation mixing of rubber compounds at Ohio Rubber.

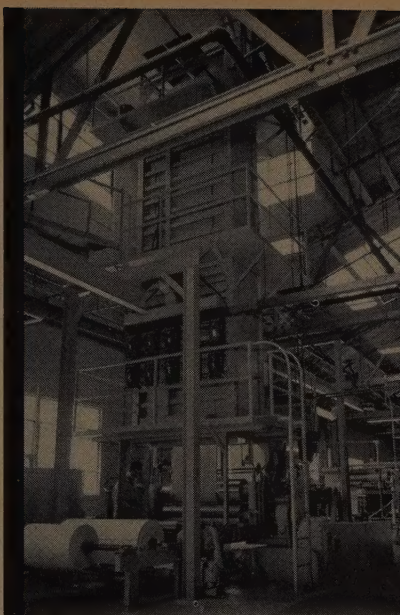






Plant at Joplin, Missouri makes wool-like insulation from rock-like minerals.

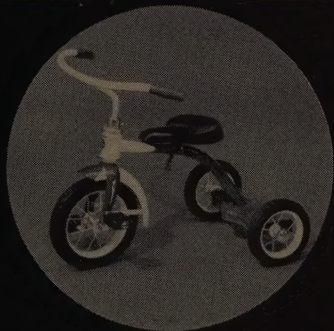
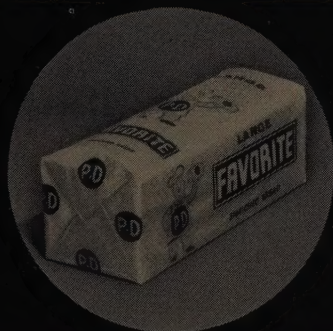
## ...Growth through planned diversification



Impregnating equipment at Fabiricon Products Company. This division was acquired in 1954.



Getting ready to drill holes for dynamite charges in Eagle-Picher mine in Oklahoma.



Bread wrappers by Fabiricon

Semi-pneumatic tires by Ohio Rubber

Laminated plastic table tops by Fabiricon

Virtually all of our customers are manufacturers. So are we. With this difference. We manufacture materials and component parts for other industrial companies.

We have the capacity to meet unusual demands, the flexibility to fit smoothly into another manufacturer's program. Ours is a broad background of multiple industry knowledge and experience from the production viewpoint. This is our highest skill, the thing we know how to do best.

## DIVISIONS AND PRINCIPAL PRODUCTS

**CHEMICAL DIVISION**—Zinc and lead chemicals, pigments and oxides; electronic grade germanium, silicon, gallium; sulphuric acid; special purpose electric power supplies.

**CHICAGO VITREOUS CORPORATION DIVISION**—Porcelain enamel frits for home appliances, plumbing ware, lighting fixtures; architectural paneling; all-porcelain enamel service stations (Lusterlite Corporation.)

**FABIRICON PRODUCTS DIVISION**—Automotive parts; custom impregnated papers, textiles and glass-cloth; packaging materials of plain and printed waxed paper, printed cellophane and polyethylene.

**INSULATION DIVISION**—Mineral wool insulations . . . cement blocks, blankets, felts; aluminum storm enclosures; diatomaceous earth products . . . filter aids, aggregates, absorbents, catalyst supports.

**MINING AND SMELTING DIVISION**—Slab zinc, chat, cadmium, germanium, silicon, zinc concentrates, lead concentrates.

**OHIO RUBBER COMPANY DIVISION**—Molded and extruded rubber parts for automotive, agricultural equipment, electrical appliances, toy and other industries. Natural, synthetic, polyurethane and silicone rubber products.



# Defense Weapon

The telephone is a defense weapon—and an important one.

A manufacturer of rockets, for example, needs data or delivery on a specific part. He picks up his telephone, makes several Long Distance calls, and his problem is solved.

An unidentified aircraft is detected in flight by a radar installation. The information is relayed automatically and instantly over telephone cables to a defense center.

It is then flashed over the network of special Bell System telephone lines which link the country's entire system of continental defense.

The role of the Bell System does not stop there or with the thousands upon thousands of calls that are a part of the manufacture of countless items of defense.

Its Bell Telephone Laboratories are engaged in many important research and development projects for the government. These include the Nike Zeus anti-missile missile system and the guidance system for the Titan

intercontinental ballistic missile.

Western Electric, the Bell System's manufacturing and supply unit, is producing the guidance and control equipment which is the heart and brains of the mighty Nike Ajax and Nike Hercules missile systems.

The Sandia Corporation, a subsidiary of Western Electric, continues to manage the Atomic Energy Commission's Sandia Laboratory, which develops, designs and tests atomic weapons.

Among many other Western Electric defense projects were the 3000-mile Distant Early Warning (DEW) Line in the Arctic and the "White Alice" communication system linking population centers and military installations in Alaska. Both were completed on schedule and turned over to the Air Force.

Another project for the Air Force was the design, production and supervision of installation of a communications system for a guided missile test range extending out to sea.

The backbone of this system is the special undersea cable that stretches 1370 nautical miles from Cape Canaveral in Florida to Puerto Rico. It provides an instant, secret, weather-proof means of transmitting data on missiles in flight.

Radar installations along the way spot the missile's flight position which is flashed continuously to the testing base by cable. So are signals from the missile itself.

Recently the U.S. Air Force asked us to add the communications phases of a ballistic missile early warning system to the other military projects handled by the Bell System.

The Bell System is primarily engaged in providing telephone service. But it gives top priority and its utmost effort to the needs of Government whenever it is called upon for work for which it is specially fitted by size and experience.

Particularly when it comes to protecting the country, it's good to use the best scientific knowledge available in the communications field.



**BELL  
TELEPHONE  
SYSTEM**





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# Management's International Mission

by T. S. Petersen

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*It is somewhat incongruous when the United States government prosecutes business firms because of "bigness," and yet because of the same "bigness," seeks their assistance in our ever-expanding international aid programs. Among the handful of global firms which assist in these programs, and work hand-in-hand with the U. S. government, none is more active than Standard Oil Co. of California. Mr. Petersen, president of Standard of California, one of the world's top business leaders and a not infrequent guest at the White House, here analyzes management's role in this sphere of ever-increasing importance.*

\* \* \*

VIRTUALLY ALL UNITED STATES BUSINESSMEN are aware that in this past half century, American business has broken regional bounds. It is no longer wholly profitable or efficient to restrict major business to limited geographical regions of the country. Production and distribution systems have been enlarged to enable managements to enter and develop, serve and expand a nationwide market.

Indeed, American business, in a mighty surge of development mainly confined to the last quarter of a century, has become global. During this time many of the leadership functions once performed by 19th century British commerce has been assumed, in much altered relationships, by us. And so American management now has an international mission.

This international mission is three-fold:

First, we retain the basic mission and responsibility of any managers—to run successful businesses; to make money.

Second, our mission includes the responsibility and obligation to develop the natural resources of less-developed free countries, for the joint purpose of assisting their economies, and to make their resources available for the continued economic progress and security of the United States and the rest of the Free World.

And third, we have the mission of strengthening the economies of the Free World countries in order to advance the development and military security of all free nations, ourselves included.

This part of the mission also includes something of a moral responsibility for assisting the Free World's less-developed areas to elevate their standards of living. The

services performed in the Middle East by American Oil companies, for example, have helped the governments there to build roads, hospitals and schools, and establish training and education programs for the people.

The three parts of this mission are closely inter-related. Our pursuit of these objectives amounts to enlightened self-interest. Strengthening the U.S. economy and defense, developing of free foreign economies, making a profit—all these contribute to the mutually desirable objective of peace and prosperity for all.

Management's mission is one that has been thrust upon us, whether we like it or not. Even if we wished to, we could not avoid taking part in it. Our government vitally depends upon the contributions of American management for the realization of its peaceful policies. Without the understanding of management, without the exports of investment capital which management risks, without the economic trail-blazing that management carries on, I believe our Federal government would be seriously handicapped in attempting to stabilize and hold together the Free World bloc of nations.

## WELCOMES KHRUSHCHEV'S CHALLENGE

If anyone doubts this—if they would deny that American management has a key role to play in implementing the policies of our government—let them listen to Nikita Khrushchev: "In the peaceful field of trade we will bury you," he told Western diplomats at a Kremlin reception. In other words, the field of conflict now between the Soviets and the democracies is international business; and management has been drafted to serve.

I welcome this challenge from Mr. Khrushchev; I am frankly relieved that he has turned his attention to peaceful ways of making war on us. I also welcome this opportunity for a practical showdown between our two systems. The Kremlin proclaims to the world that a slave economy can outproduce a free economy. It promises that the Communist system can realize the hopes and aspirations of the people of less-developed countries in a shorter time than the system of private enterprise can.

Make no mistake, we have to do something more than merely toss our helmet on the field to win *this* contest. It is easy for us to believe and to tell ourselves that free men will, in the long run, out-produce a slave economy. But we must demonstrate that fact to the one and a half billion people on this earth who remain skeptical.

Unfortunately, we find ourselves starting out with a serious handicap. I refer to the misunderstanding that exists concerning our mission abroad.

---

*T. S. Petersen, president of Standard Oil Co. of California, is a director of Pacific Mutual Life Insurance Co., a trustee of the California Academy of Sciences and also of the Asia Foundation. In addition, he is a member of the Business Advisory Council for the U.S. Department of Commerce, and consulting professor of marketing at Stanford University.*



It seems decidedly obvious that the successful overseas ventures of American businessmen should be praised for their contribution to the economy and security of all the Free World. Yet this is certainly not always the case—not even most of the time! Instead, what you hear are suspicious mutterings about the supposedly exorbitant profits these ventures bring, about how they threaten the livelihood of American workers, about how they enable corporations to evade just taxation. The average American is fed a great deal of anti-business propaganda, none of it more distorted than this false propaganda about foreign profits.

#### OIL'S INVESTMENT: \$10 BILLION

I know something about this from painful experience. The business in which I am engaged, the American Oil Industry, has far more invested abroad—nearly 10 billion dollars—than any other industry. That's out of a total investment of \$25 billion.

Our job is to discover, produce and market oil for the use of the Free World. I could dwell at length, for example, upon how the Middle East has advanced to a new scale of economic and social life through the benefits accruing from development of its oil resources. This is not the place for that story, but the record will bear the most critical inspection. It is a splendid record, yet it has been maliciously distorted in some quarters.

The disturbing conviction settles upon the mind of anyone examining the record of American private investment abroad that many people, both in and out of Congress, are somehow blind to the great risks involved; the need for incentives to justify them; and the modest character, on the average, of the profits of overseas investments.

These prejudices and distorted conceptions, often fostered by people with an anti-business grudge or bias, are handicapping the United States and the Free World in their competition with the Communist sphere.

It's apparent, then that business will have to start doing a better job of explaining itself and what it is trying to do. Only through development of public understanding in this manner can we expect to get the kind of understanding, in and out of government, that we *must* have to do the job.

Basically, it's a communications problem, and I believe business and industry must begin right now to carry this message to the public through the various media available. All businessmen can contribute by telling its story to friends, business associates—anyone who will listen. If all of us in business, personally, convince enough other individuals, and they in turn convince others, we can alter these distorted concepts now held about this management mission on the international scene.

Mere understanding, however, will not accomplish the mission itself. And so I turn now to how I believe this important task should be approached.

There are two fairly fundamental routes to follow. Neither is at all revolutionary:

#### STIMULATE FOREIGN INVESTMENTS

First, foreign investment by U.S. investors must be stimulated to a considerably greater degree than now exists.

Second, all the various barriers now restricting international trade must be continually reduced.

Foreign investment emerges clearly as the underpinning of our total effort.

A little over a year ago San Francisco was the scene of a meeting of more than 600 businessmen from 56 free countries. This was the International Industrial Development Conference, sponsored by Time-Life, Inc., and the Stanford Research Institute. No one who was present at that extraordinary meeting could fail to acquire a new appreciation of how great is the responsibility of American management on the international scene.

Probably no banker in history has invested more public money in the less-developed parts of the world than Eugene Black, the president of the World Bank. Yet he reminded the delegates to the San Francisco conference that public investment sources, national and international, would not likely provide the steady growth of foreign investment that is needed.

There was general agreement in the conference round-table discussion on this point: That the economic and political strength of the free world requires a strong partnership between private enterprise, government and free labor—supported by science, technology, productivity, and the spirit of free people.

In discussions about the economic race with Communism, you will frequently hear it said that the government, both Congress and the Executive branch, would like to be able to put primary reliance on private enterprise to win the race.

#### PRIVATE CAPITAL NEEDED

"The whole free world needs capital, and America is its largest source," said President Eisenhower in a message to Congress on foreign economic policy. "In that light, the flow of capital abroad from our country must be stimulated and in such a manner that it results in investment largely by individuals or private enterprises rather than by government."

One of the President's specific proposals stemming from his conviction that the flow of capital abroad "must be stimulated" has been for legislation that would provide for a 14-point tax allowance. This means reducing U.S. taxes on corporation income from foreign sources to 38%, where on domestic income the rate is of course 52%.

To that proposal I would add these others, which have been endorsed by our company (Standard Oil Co. of California):

1. All U.S. companies operating abroad, whether directly or through foreign-based subsidiaries, should be permitted to defer payment of U.S. taxes on foreign income until the earnings enter this country. As things now stand, a U.S. company operating directly in a foreign country must pay taxes on its income currently, while income earned through a foreign subsidiary is not taxable by the United States until the subsidiary pays a dividend to its parent.

This gives the foreign subsidiary a decided advantage, in that it may choose to re-invest all or part of its earnings tax



free, rather than paying a dividend, while the U.S. company must pay taxes at home whether or not it re-invests.

I do not believe an American investor should have to resort to a foreign subsidiary to be competitive with foreign capital. If we continued to give domestic companies abroad the protection of our tax laws, but at the same time permitted them to defer taxes on foreign income, it would serve as a powerful incentive to foreign investment. We would be putting our domestic companies on a far more competitive footing with their foreign competitors in a foreign jurisdiction.

2. The United States should allow a credit for taxes waived by a foreign country, where the purpose of the waiver is to stimulate business in the foreign country. Under our present tax structure, the waiver in effect is absorbed by the U.S. and the incentive is eliminated.

3. Another area where remedial legislation is needed is in the section of the Internal Revenue Code (367) governing reorganization of foreign corporations. These corporations are presently severely limited in the moves they can make to reorganize or consolidate foreign holdings, because of the heavy taxes on liquidations or transfers of ownership that apply.

By contrast, wholly domestic companies are free to make such moves without incurring tax liability. I feel, therefore, that if these same tax benefits were extended to foreign corporations, it would provide an important stimulus to further investment abroad.

It's encouraging to note that these proposals, as well as the 14-point reduction recommended by the President, have been incorporated in a bill submitted to the present Congress by Representative Hale Boggs of Louisiana. This is H.R. 5, the proposed Foreign Investment Incentive Tax Act; I believe it is most deserving of our support.

It is worth stressing also that it is vital to keep on the books those *already* existing tax provisions which are now helping importantly to stimulate foreign investment. These include the credit for taxes paid to a foreign country, percentage depletion for extractive industries, and the so-called "Western Hemisphere Trade Corporation" provision of the tax law. This is the provision which grants a 14-point tax reduction to U.S. corporations engaged in trade or business outside of the United States in the Western Hemisphere. It has served effectively to promote trade between the United States and other countries of this hemisphere; in fact, extending its provisions world-wide would have an extremely salutary effect on investment.

#### TAX HELP ABROAD NEEDED

Foreign countries of course must likewise contribute to the encouragement of U.S. investment abroad. The waiver of taxes is one way to do this; in general they should adjust their tax rates to compensate for the risks that may be run by the foreign investor.

It is essential that they provide means for the repatriation of capital and profits without undue penalties in the form of currency restrictions; and they should provide safeguards assuring that control of the management will remain in the hands of the investors.

An obvious incentive to investment, too, is a demonstrably high standard of business ethics. Those countries which scrupulously adhere to their agreements with foreign investors, whether written out or tacitly understood, are most likely to attract the capital they need. Conversely an investor, once burned by a country which fails to live up to its part of a bargain, will probably seek other climes.

In addition to encouraging foreign investment, the stimulation of freer trade fits very precisely and logically into the total fabric of management's mission on the international scene. There is nothing mysterious or particularly technical about it. Obviously our allies need access to our

Since this article was written, the U.S. Government has received a highly-significant document recommending tax changes, as suggested here by Mr. Petersen, to stimulate private investment overseas. Submission of this report was authorized by Congress and authored by Ralph I. Straus, a director of R. H. Macy & Co., and a foreign policy consultant to the U. S. Government.

markets in order to encourage their economic growth and enhance their standards of living—and in the process strengthen the economic sinews of the Free World as a whole. Perhaps less obviously, we need—and, it appears, are going to need more and more—their markets as an outlet for our own economic energies.

Here again we are confronted by often discouraging obstacles—obstacles which are as old as international trade itself. Just how *do* we go about establishing this mutual market accessibility?

#### RECIPROCAL TRADE, A START

Seemingly the answer involves thorny issues that have been, and will be, debated in the United States Congress, British Parliament and in other legislative bodies for generations to come. But it is heartening to witness that a start has been made. Our own Reciprocal Trade Agreements Act, which has provided a sort of "road back" from the depths of McKinley protectionism, is part of that start.

More recently, we Americans have been watching with varying degrees of anticipation and approval the steps being taken by the Western European countries toward freer trade.

Here were the leading trading nations of Western Europe asserting their confidence in their economic future by allowing "external convertibility" of their currency, or in other words permitting non-resident foreigners to convert into dollars and other money the currency which is earned in those countries.

This liberalization of European currency exchanges should be helpful in enlarging purchases from the United States by European businessmen.

Best of all, these economic developments in Western Europe should have an instructive effect in this country.



They should help to deflate the arguments of those who have been reluctant to see the United States lead the way toward freer world trade.

#### COMMON MARKET PRAISED

The adoption of the European Common Market on January 1 was a rational and farsighted act of economic and political statesmanship.\*

The six countries of the Common Market have a population almost equal to that of the United States, a Gross National Product of about \$180 billion, and a potential capacity to absorb imports that may be even greater than the huge import capacity of the United States.

Those Europeans who have long been accustomed to walling themselves up behind barriers, in order to secure the imagined benefits of protection of national industries, are coming to the realization that these walls are the very obstacles that have stood in the way of economic advance.

It is possible that this realization will result in the working out of a Free Trade Area among the nations surrounding the Common Market Countries, so that we shall ultimately see a 17-nation bloc concerting their trading arrangements.

We were told at the International Industrial Development Conference at San Francisco that if the 17 countries of Western Europe do set up such a Free Trade Area, it will become possible for American business to establish a plant anywhere in the 17 countries and enjoy free trade over the whole market area, including parts of Africa.

And these markets are attractive ones. Consumer demand has been growing rapidly in Western Europe since that region's recovery from war dislocation was completed along about 1950. Labor productivity has risen there at a higher annual rate than in the U.S. Europeans have money to spend for cars, TV sets, radios and refrigerators.

#### TRADE, 'TWO WAY STREET'

All of this offers comforting prospects to American business, but it also poses something of a challenge. This liberalization of trade restrictions, must inevitably be a mutual thing. If we expect to take advantage of Europe's increasingly enlightened outlook, we must prescribe for ourselves some proportion of the same remedy of tariff cuts.

Two basic facts of economic life dictate such a course. First, there is a new factor in the picture that works against the traditional American tendency toward over-protectionism. It is this: The United States, really for the first time in almost half a century since the start of World War I, is about to experience competition and rivalry from a single market area of comparable size to ours, and with a potential approaching ours. We shall find that to hold and develop foreign trade in the face of this European potential will require what Secretary of State John Foster Dulles has referred to in another context as "an agonizing reappraisal."

We cannot open an advantageous access to Europe's

markets for our own excess economic energies, unless, to some equitable degree, we reciprocate.

The second of the economic facts of life that obtain here has to do with one of the great delusions that has a baffling degree of acceptance in some quarters. This is the delusion of national self-sufficiency. The deadweight of tradition is difficult to throw off, but the fact is that in raw materials we have largely changed from a "have" to a "have not" nation.

A half-century has seen that transition. Where formerly we had relative self-sufficiency in raw materials, we have come to the point that ours is now the greatest importing nation in the world. Our position has swung 180 degrees around the compass.

Consider some of these imports figures, from the latest international trade statistics compiled by the United Nations:

In 1957 our country's imports totaled about \$13 billion, well ahead of the next largest importer, the United Kingdom. We imported \$2.7 billion in raw materials, exclusive of fuels, second only to the U. K.

The U.S. ranked first again in imports of fuels, lubricants and related materials, with close to \$1.6 billion; first in chemicals, with \$390 million. We were well ahead in the non-ferrous metals such as aluminum, lead, zinc and tin—all highly strategic; and, exclusive of machinery and transport equipment, we are also first in imports of manufactured goods.

It has been estimated by Percy Bidwell, the noted economist, that between 35 and 40% of the Free World's output of raw materials is consumed by U.S. manufacturing industries.

#### ENCOURAGE FOREIGN IMPORTS

We must, in short, allow and encourage an increasing volume of imports, not merely as a lever to pry open foreign markets for our own products, but because we are deficient in many of the basic raw materials that are vital to our domestic economy.

No one, certainly, would propose on the basis of these dual objectives that we totally lower *all* tariff barriers. A very real need continues to protect within reason certain of our essential industries against the possibility that we be cut off from foreign sources of the same product. Not all protectionism is blind or undesirable *per se*. We must safeguard such strategic industries as optics, precision instruments and others which, experience has demonstrated, often cannot withstand the rigors of competition from abroad.

But at the same time we must, in all realism, make provision for the importation of *some* commodities and finished products which are competitive with our own domestic output. The degree to which we can safely expose ourselves to this necessary competition from abroad is, obviously, not simple to determine. But we *do* have the means for such determination, in the machinery of the Reciprocal Trade Act.

As I have pointed out, this is not only desirable but essential in the case of raw materials. By 1975, according to the Paley Commission on raw materials resources, the

\*See The Analysts Journal, February 1959 for a detailed discussion of Europe's Common Market.



U.S. is going to require double the output of goods and services that it had in 1950. The raw materials required for a doubled output of goods and services must largely come from abroad.

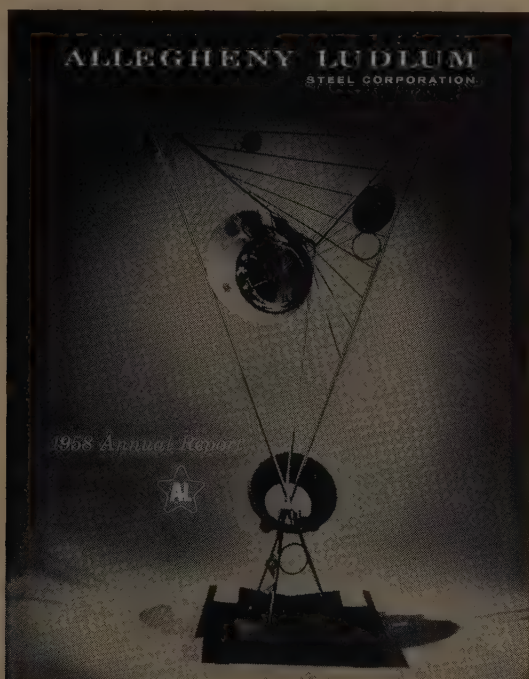
#### OIL IMPORTS NEEDED

It may be significant to note that oil provides a very immediate and practical example of the problem with which our country is confronted. We need oil from abroad to supplement our domestic supplies; also, in our own self-interest it is essential that we maintain friendly relations with oil-producing countries in the Middle East, Far East, South America and elsewhere, and this means buying some of their oil. At the same time, it is in America's own self-interest to maintain a healthy domestic oil industry.

How to compromise this dilemma is a troublesome question. But compromise it we must, for a decision tending toward either extreme of the question can only be destructive of our nation's best interests.

Our Country's communist competitors have issued the challenge. The conflict for the time being—and we hope permanently—is to be in the peaceful realm of trade and commerce. But it is conflict nonetheless. We of the business community are, perforce, deeply involved. Foreign investment and international trade are the most effective weapons in this contest. No one is better equipped to deploy and use these weapons than American business management.

That then is management's mission; and it is a vital and historic one.



*The Annual Report cover depicts an abstract sculpture made of some of Allegheny Ludlum's metals, and products made from them, suggesting the beauty and lasting quality of these metals and the diversification of the Company's markets.*

#### Report in Brief

Sales and Revenues.....	\$202,573,000
Net Earnings.....	5,845,000
Earnings per Share of Common Stock.....	\$1.52
Dividends per Common Share.....	\$2.00
Working Capital at December 31.....	62,706,000
Shareowners' Investment (Net Worth).....	105,268,000
Capital Expenditures.....	4,454,000
Number of Shareowners at December 31.....	19,678

*Write for your copy of the 1958 Annual Report*

**ALLEGHENY LUDLUM STEEL CORPORATION**  
OLIVER BUILDING, PITTSBURGH 22, PA.

## general portland cement company

#### COMMON STOCK DIVIDEND

The Board of Directors of General Portland Cement Company has this day declared a quarterly dividend upon its Common Stock of 45 cents per share, payable March 31, 1959 to stockholders of record at the close of business on March 11, 1959. The stock transfer books will remain open.

HOWARD MILLER,  
February 25, 1959 Treasurer

## R. J. Reynolds Tobacco Company

Makers of  
Camel, Winston, Salem & Cavalier  
cigarettes  
Prince Albert, George Washington  
Carter Hall  
smoking tobacco

#### QUARTERLY DIVIDEND

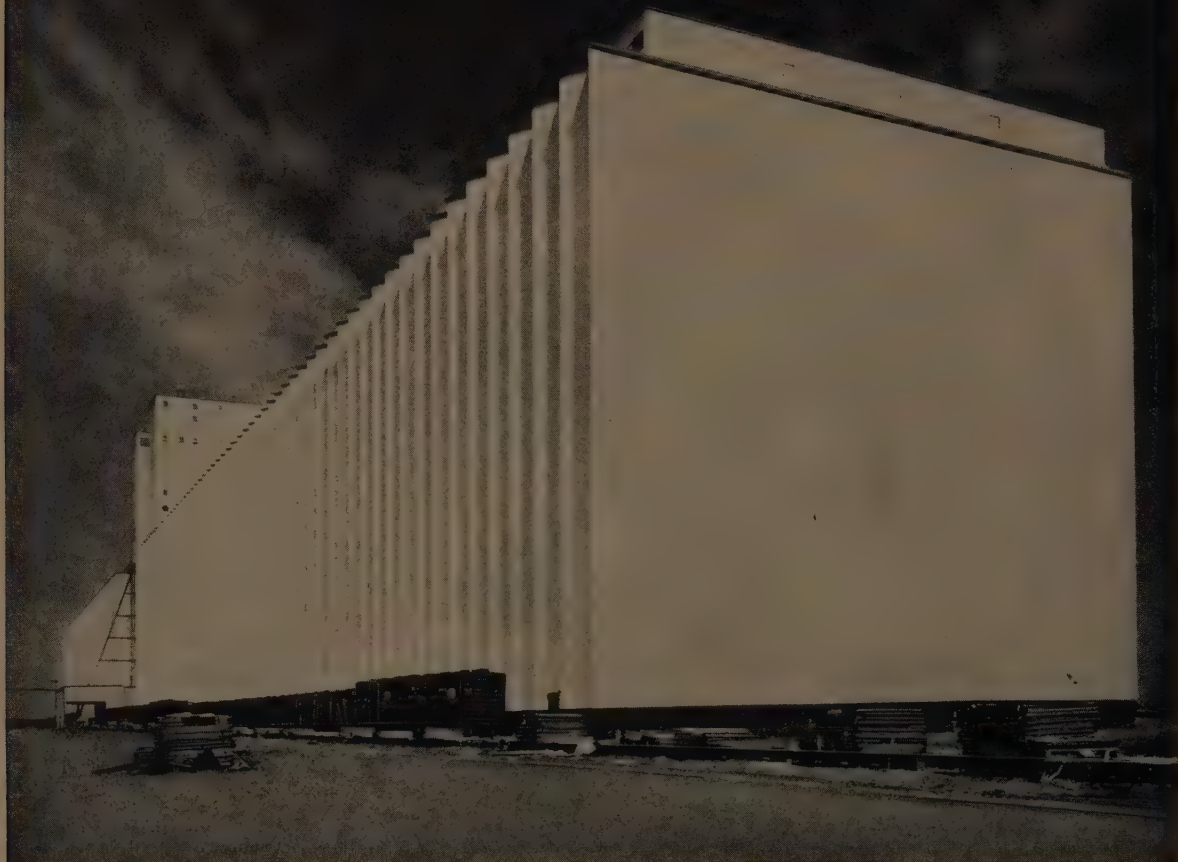
A quarterly dividend of 50c per share has been declared on the Common Stock, par value \$5, of the Company, payable June 5, 1959 to stockholders of record at the close of business May 15, 1959.

W. J. CONRAD,  
Secretary

Winston-Salem, N. C.  
April 10, 1959



GOODYEAR DIVERSIFICATION AT WORK



## The Coat That Stretches over 3 Acres

SCENE: One of the world's largest grain elevators . . . *three acres* of concrete, housing 16,300,000 bushels of grain.

Its protective covering must resist the concrete's alkali and moisture . . . seal out even the roughest weather. The paint chosen for the job is made with Pliolite S-5, Goodyear's odorless, thermoplastic resin that produces

films of exceptional toughness and durability.

Pliolite S-5 is just one of numerous synthetic rubber resins made by the Goodyear Chemical Division. Synthetic rubber resins are just one of dozens of product-groups made by this Division. The Division is just one in a vast network of Goodyear facilities that make and sell hundreds of products around the world.

Pliolite—T. M. The Goodyear Tire & Rubber Company

# GOOD YEAR

THE GREATEST NAME IN RUBBER

AIRCRAFT • AVIATION PRODUCTS • CHEMICALS • FILMS • FLOORING • FOAM PRODUCTS  
INDUSTRIAL RUBBER GOODS • METAL PRODUCTS • SHOE PRODUCTS • TIRES



# Is Steel a Growth Industry?

by G. Howard Conklin

THE ANALYSTS JOURNAL of August, 1956, carried an article entitled "Steel as a Growth Industry." It presented facts and figures which illustrated that the earnings per share of U. S. Steel, Bethlehem Steel and Republic Steel had recorded a greater percentage increase from 1939 through 1955 than had Du Pont, Dow Chemical, Monsanto, Union Carbide, Minnesota Mining, Aluminum Co. of America and Minneapolis-Honeywell. It also showed that 1939 was not a "freak" year, but that similar relative comparisons would result if 1945, 1947 or 1950 were taken as the base years.

The conclusion was that, in the only kind of growth which really matters, namely, the growth in earnings per share, the leaders of the steel industry ranked extremely high as compared to the performance of a recognized list of "growth stocks." The second conclusion was that steel stocks were selling at price-times-earnings ratios which were far too low in relation to their growth in earnings per share and in relation to the high price-times-earnings ratios of those "growth stocks" which were used in the article for comparative purposes.

Now, in April, 1959, almost three years have passed since the publication of this article and the steel industry has just experienced the deepest recession in over a decade. At this time it would seem opportune to determine whether the steel industry, which had a "Prince or Pauper" history for the first 40 years of this century, has been able to retain any of its subsequently acquired growth characteristics.

If earnings per share of various steel companies for 1958 are compared with those of 1949, and if a similar comparison is made of the per share earnings of various recognized growth stocks, one can readily determine the relative performance of the two groups.

Earnings Per Share for 1958 Expressed  
as Index Numbers (1949 = 100)

Steel Stocks		Growth Stocks	
McLouth Steel	395	National Lead	283
Allegheny Ludlum	266	Minneapolis-Honeywell	213
Lukens	216	Aluminum Co. of Amer.	208
U. S. Steel	190	General Electric	191
Inland Steel	162	Du Pont	160
Granite City	135	Union Carbide	129
Bethlehem Steel	120	Monsanto Chemical	125
Republic Steel	105	International Paper	123
Armco Steel	100	Dow Chemical	120

From the above comparison it would appear that many of the steel stocks, over the last nine years, have done as well as or better than some of the glamorous growth stocks.

G. Howard Conklin, vice president and research director of Dana Investment Co., has lectured on industrial subjects at New York University and at Rutgers. He has written previously for *The Analysts Journal*, as well as for numerous other financial publications.

Using these stocks and the earnings per share figures for 1949 and for 1958, it is found that the average annual rates of growth were as follows:

Rates of Growth as Determined  
by Compound Interest Tables

	Per Annum %		Per Annum %
McLouth Steel	16.5	National Lead	12.2
Allegheny Ludlum	11.5	Minneapolis-Honeywell	8.8
Lukens Steel	9.0	Aluminum Co. of Amer.	8.5
U. S. Steel	7.4	General Electric	7.5
Inland Steel	5.5	Du Pont	5.4
Granite City Steel	3.4	Union Carbide	2.9
Bethlehem Steel	2.1	Monsanto Chemical	2.5
Republic Steel	0.6	International Paper	2.4
Armco Steel	0	Dow Chemical	2.1

Perhaps the year 1949 was an unusually depressed year for the steel industry. In order to be sure that the above favorable comparisons are valid, the first table is repeated below with the year 1954 as the base year.

Earnings Per Share for 1958 Expressed  
as Index Numbers (1954 = 100)

Steel Stocks		Growth Stocks	
McLouth Steel	855	Minneapolis-Honeywell	133
Granite City	213	Union Carbide	133
Lukens	207	Dow Chemical	125
U. S. Steel	159	National Lead	119
Allegheny Ludlum	132	General Electric	117
Republic Steel	111	Monsanto Chemical	106
Inland Steel	105	Du Pont	99
Armco Steel	98	International Paper	86
Bethlehem Steel	88	Aluminum Co. of Amer.	66

This comparison is even more favorable than the table which uses 1949 as a base year. Obviously, the earnings of steel companies have been establishing an outstanding performance. For those analysts who wish to work out comparable figures using other years as base years, the author wishes to state that both 1949 and 1954 are base years which favor the steel industry more than some of the other intermediate years. Nevertheless, no matter which of the past five to ten intermediate years are used as a base, the steel industry will show a very strong relative growth in earnings per share.

The next yardstick to consider is the return on invested capital. A smaller but representative list of companies is given below. Figures for 1957 are used.

Return on Invested Capital

Steel Stocks		Growth Stocks	
	%		%
U. S. Steel	13.0	Minneapolis-Honeywell	12.3
Bethlehem Steel	11.3	Union Carbide	12.1
Republic Steel	11.1	Dow Chemical	10.6
Inland Steel	10.8	Monsanto Chemical	8.1

On the above basis, some of the steel stocks compare very favorably.



Another requirement of a "growth situation" is that its net income must be high relative to sales. Again, 1957 sales and earnings figures are used:

Net Income as a Per Cent of Sales			
Steel Stocks		Growth Stocks	
	%		%
U. S. Steel	9.6	Union Carbide	9.6
Inland Steel	7.7	Aluminum Co. of Amer.	8.7
Bethlehem Steel	7.3	Minneapolis-Honeywell	6.6
National Steel	7.1	Monsanto Chemical	6.5

Again, the steel stocks compare satisfactorily.

A growth stock, in order to generate cash for future growth, must plow back a large part of its earnings. In this example, 1957 dividends are expressed as a per cent of earnings.

Plow Back of Earnings as Measured by Low Percentages of Dividends to Earnings

Steel Stocks		Growth Stocks	
	%		%
U. S. Steel	40.9	Aluminum Co. of Amer.	33.7
Inland Steel	43.5	Dow Chemical	55.8
Jones & Laughlin	44.2	Minneapolis-Honeywell	57.0
National Steel	48.9	Monsanto Chemical	59.5
Republic Steel	55.5	Du Pont	76.6
Bethlehem Steel	58.1	Union Carbide	80.9

On the above basis, the steels as a group rate higher than the growth stocks, since the former are paying out a smaller percentage of earnings as dividends.

Growth stocks can often be distinguished from non-growth stocks by the amount of capital required to set up a minimum economic productive unit. If only a few hundred thousand dollars are needed to set up a plywood manufacturing unit, it is obvious that the business will be highly competitive and that price-cutting in bad times is to be expected. On the other hand, a minimum economic unit for producing and finishing steel must produce about 1,000,000 tons per year. At a cost of about \$400 per ton, some \$400 million is needed to set up an economic competing unit in the steel industry. Therefore, there can be no "fly-by-nights" or operators who are here today and gone tomorrow in the steel industry. Because of the huge plant and equipment investments involved, the steel industry is free to grow without suffering from competition of the irresponsible variety.

At the same time the article "Steel as a Growth Industry" was written, steel stocks were selling at eight to nine times earnings. This was a marked improvement above the five to seven times reported for the year 1953. What is the price-times-earnings relationship today?

	Earned Per Share 1958	Market 3-30-59	Price Times Earnings Ratio
Steel Stocks			
Republic Steel	\$3.96	66-5/8	16.8
Armco Steel	3.87	66	17.0
Bethlehem Steel	2.91	50-1/8	17.2
U. S. Steel	5.13	89-5/8	17.4
Jones & Laughlin	2.79	64-3/8	23.1
Growth Stocks			
Monsanto Chemical	1.55	44-5/8	28.7
Union Carbide	4.15	130-1/8	31.3
Minneapolis-Honeywell	3.23	120-3/4	37.4
Aluminum Co. of Amer.	1.96	80	40.8

Although steel stocks are selling on a much higher price-times-earnings ratio basis than they have historically, they are still conservative as compared to some of the more popular growth stocks. If we consider the price-earnings-ratios based on estimated 1959 earnings, the comparison is even more strongly in favor of the steels:

	Estimated Earned Per Share 1959	Market 3-30-59	Price Times Earnings Ratio
Steel Stocks			
Jones & Laughlin	\$6.75	64-3/8	9.5
Republic Steel	6.50	66-5/8	10.2
Armco Steel	5.75	66	11.4
Bethlehem Steel	4.00	50-1/8	12.5
U. S. Steel	7.00	89-5/8	12.8
Growth Stocks			
Monsanto Chemical	1.90	44-5/8	23.4
Union Carbide	5.25	130-1/8	24.7
Aluminum Co. of Amer.	2.40	80	33.3
Minneapolis-Honeywell	3.60	120-3/4	33.5

All of the above comparisons are favorable to the steel industry. There are, however, a number of important factors which are definitely unfavorable. A fairly complete coverage of the unfavorable elements follows.

Evaluating corporate research programs has become a fetish among many analysts who are looking for growth stocks. They are constantly measuring research expenditures against annual sales and using other yardsticks. In so far as research is concerned, the steel industry has lagged far behind. Most steel today is produced by using the same basic processes as were used 50 years ago. It is true that production units are much larger and more efficient. Higher temperatures are used; better firebrick has been developed; oxygen is employed to shorten the open hearth cycle; and rolling mills have been redesigned on a continuous and high speed basis. Nevertheless, this type of improvement represents a continuous process of evolution rather than the revolutionary changes which the chemical industry has experienced as a direct result of successful laboratory research. The steel industry is aware of this weakness and in recent years it has been encouraging to security analysts to see central research laboratories established by several of the industry leaders. Furthermore, the continuous casting process and the several pilot plants in use for the direct reduction of iron ore (omitting the blast furnace stage entirely) may be considered as examples of the many forward steps which research promises to the steel industry for the future. Right now, however, the steel industry does not measure up to the usual growth stock standards for research.

Most people think of a "growth stock" as the stock of a company which is a member of a new industry which is manufacturing never-before-produced articles and recording rapidly increasing unit and dollar sales each year. The steel industry certainly does not qualify in this respect, as can readily be seen by the following two examples:

1.) For the full year 1958, the domestic steel industry operated at an average of only 60.6% of its ingot capacity. This is the lowest rate of capacity operation for any year since 1938, or 20 years ago, when the industry operated at 39.6% of its then existing capacity of 80,185,000 tons. (1958 capacity was 140,742,000 tons.)



2.) For the entire year 1958, the domestic steel industry produced 85,254,000 tons of ingots. This was the smallest tonnage produced since 1947, eleven years ago, when 84,894,000 tons of ingots were produced.

It is quite apparent that the steel industry does not qualify as a "growth industry" on the basis of an increasing volume of tonnage sales.

The question naturally arises as to how it was possible for a number of well-known steel companies to report substantial increases in earnings per share with little or no increase in the physical volume of sales. There are two important explanations, as follows:

- 1.) Increased selling prices.
- 2.) A much lower break-even point.

#### *Increased Selling Prices*

From 1949 to 1957 the average annual price of Bessemer and open hearth steel billets increased from \$52.03 per net ton to \$75.75 per net ton, for a rise of 45.5%. Most of this advance in price (32.2%) took place during the last five years. The managements of practically all of the steel companies in the U. S. A. have become "profit minded" instead of "tonnage minded" during the past ten to fifteen years. Prior to that time, whenever business experienced a decline, the steel companies cut prices in a fruitless effort to maintain tonnage shipments. Since the end of World War II, prices have been maintained remarkably well during each recession. Even steel executives who, as a group, are inclined to be uncommunicative about steel prices, admit that a large part of increased earnings in recent years is attributable to more realistic pricing policies.

#### *Much Lower Break-Even Point*

Billions of dollars have been spent since 1949 by the steel industry for new facilities and new equipment. The primary purpose of these expenditures was to reduce production costs. Increasing capacity was only a secondary consideration. The effectiveness of this huge program can be roughly measured as follows:

##### Total Dollar Sales Divided by Tons of Ingots Produced

	1949	1957	% Increase
Republic Steel .....	\$ 95.81	\$144.60	50.9
U. S. Steel .....	89.18	130.82	46.8
Bethlehem Steel .....	100.89	137.21	36.0

##### Total Costs Divided by Tons of Ingots Produced

	1949	1957	% Increase
Republic Steel .....	\$88.89	\$134.59	51.4
U. S. Steel .....	82.75	118.37	43.0
Bethlehem Steel .....	93.03	127.22	36.7

The above figures show that, even though billions of dollars have been spent to reduce the production costs of steel, the benefits of this program have been largely offset by higher employment and other costs. One of the greatest gains attributable to the new facilities, however, is in the larger tonnage output per employee. This can be illustrated as follows:

##### Tons of Ingots Per Employee

	1949	1957	% Increase
U. S. Steel .....	88	124	40.9
Republic Steel .....	103	130	26.2
Bethlehem Steel .....	96	116	20.8

The above increase in labor productivity is one of the important factors which will be considered by the labor union during contract negotiations this Spring.

One of the methods for indicating a lower break-even point is to compare the earnings per share for two years when operations were at a very low rate of capacity. During the 1939 year the industry averaged 64.5% of capacity operations, against 60.6% for the year 1958.

##### Earnings Per Share

	1939	1958
Armco Steel .....	\$0.16	\$3.89
Bethlehem Steel .....	0.48	2.91
Inland Steel .....	2.24	8.32
Jones & Laughlin .....	Deficit	2.79
National Steel .....	1.90	4.80
Republic Steel .....	0.71	3.96
U. S. Steel .....	0.30	5.13

The above demonstrated ability to report high earnings per share at very low levels of operation has greatly increased investor confidence in the stability of steel earnings during periods of recession.

There is the possibility of a strike for the entire steel industry beginning about June 30, 1959, when the present contract with the United Steelworkers Union expires. This is an unfavorable factor which injects uncertainty into the investment outlook for steel stocks. There were steel strikes in 1949, 1952 and 1956 which lasted about 32 days, 55 days and 35 days, respectively. Based on the earnings reported for each of these three disturbing years, it is concluded that a strike of four weeks' duration will not seriously disrupt earnings for the full calendar year. Every day of work stoppage beyond four weeks will have an increasingly adverse effect upon 1959 annual earnings.

#### *Conclusion*

The steel industry is a mature industry which, in recent years, has been able to report a surprisingly strong growth trend in per share earnings. This has been achieved primarily by means of economic statesmanship with respect to pricing policies and by large expenditures for new and more efficient labor-saving equipment and facilities. There are no known new factors on the horizon which give promise of creating a rapid growth in the tonnage volume of steel production. On the other hand, there is every reason to believe that the factors which have created a strong upward trend in per share earnings will continue for a number of years. In other words, in that most important element of growth, namely: growth in earnings per share, the steel industry holds great promise for the future. This factor, combined with higher price-times-earnings ratios, should produce substantial capital gains for the holders of good steel stocks.



New steels are  
born at  
Armco

## HAVE YOU HEARD THE ONE ABOUT THE FELLOW WHO...

... told the boys at the club he thought the automobile people had gone overboard with these dashing new models

... and then hurried out and laid his cash on the barrelhead for the biggest, most shapely, upswept beauty he could find?

No doubt about it.

Car sales are born on the drawing board.

And the steel that made these designs possible was born at Armco in the late '20's.

Until then cars were little more than boxes on wheels. The steel from which they were made "aged" almost overnight—became too brittle for stamping into shapely fenders and panels.

The call went out for a new steel.

And Armco created it—a "non-aging" steel that emerged from the tortuous body dies smooth and intact, even after months in storage.

The automobile industry was never the same again.

Exciting new designs captured the imagination of a wealthy nation. Soon the automobile was as much a part of our lives as trousers and kitchen tables.

A new steel had helped put a nation on wheels.

New steels are always needed.

Tomorrow, as yesterday, many of them will come from Armco—where new steels are born. Armco Steel Corporation, General Offices, Middletown, Ohio.



# ARMCO STEEL

Armco Division • Sheffield Division • The National Supply Company  
Armco Drainage & Metal Products, Inc. • The Armco International Corporation  
Union Wire Rope Corporation • Southwest Steel Products



# A Comparison of British and American Steel Companies

Anonymous

WHILE THE AMERICAN STEEL INDUSTRY is about five times the size of the British capacity, there are other important differences. Nearly half the British production is exported in one form or another, while only about one-fifth of American output goes abroad. American producers tend to be more fully integrated, with coal, ore and some transportation. British companies own no coal, since nationalization, and only limited ore (primarily Stewarts and Lloyds and United Steel).

British companies tend to specialize in one or two products (Dorman Long-structurals, Stewarts and Lloyds-tubes, Summers-sheets, etc.), contrasted to wide product diversification in most American companies.

Prices of British steel products are controlled by the Government's Iron and Steel Board. However, there is more flexibility in pricing than in the United States, where any price reduction tends to become the new prevailing level for all users.

There is no political risk in the United States comparable to the Socialists' threat to renationalize the British industry. Graph I shows the relative growth of ingot production in the two countries since 1927.

The actual tonnage of production for the two countries for the last five years has been as follows:

Year	Million British Tons (2240 pounds)	
	U.S.A.	U.K.
1953	99.7	17.6
1954	78.9	18.5
1955	104.5	19.8
1956	102.9	20.7
1957	100.6	21.7

A study of the graph indicates:

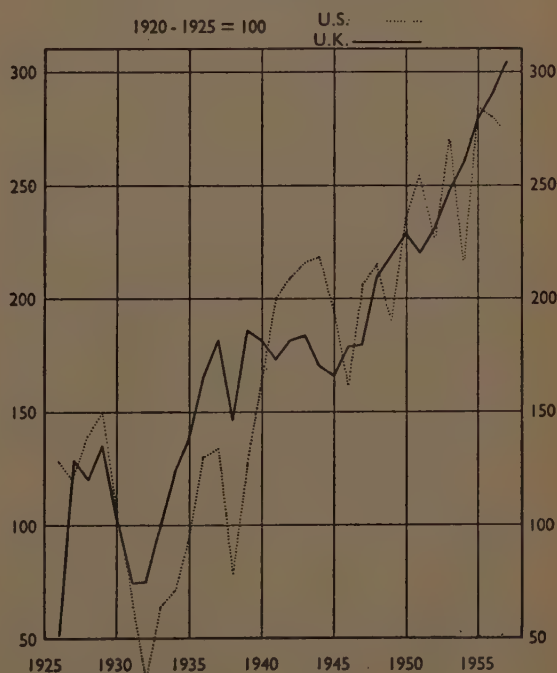
1. The United Kingdom industry has kept pace with the American in increasing production in spite of the fact that the population in U.S.A. has increased by about 42½% since 1920, compared with an increase of only 16% in the U.K.
2. The British industry has always been, and still is, much more stable than the American.
3. There has been only one downward movement in the British figures since the War—in 1951 (due primarily to arbitrary restrictions on shipping of raw materials).
4. There have been five reductions in the American figures. The 1945-46 reduction was due partly to

the switch to a peacetime economy; but there was also a strike in 1946. The 1949 recession and 1952 troughs were due to strikes, as was the small reduction in 1956. The downward movements in 1954 and 1957 were due to business recessions.

It would seem that the following conclusions can fairly be drawn:

- (a) Since modernization during the War was prohibited, much of the U.K. plant was obsolescent in 1945.
- (b) Prompt post-war planning enabled the industry to change from a "low mechanisation/low labour cost" to a "high mechanisation/high labour cost" economy when prices were low.
- (c) The U. S. industry has been expanded very nearly to meet boom demand, with the result that a slight recession can lead to below-capacity working. The British industry, on the other hand, has never been expanded to supply peak boom demands but has relied on fluctuations in imports, with the result that, (until about June 1958) the industry has been able to work to virtual capacity over the whole post-war period.
- (d) The Americans have found it possible to work well

Graph I  
U.S. & U.K. STEEL PRODUCTION



EDITOR'S NOTE: The author of this article is a managing partner in a well-known British stock exchange firm and an acknowledged expert on steel stock. London's Stock Exchange tradition favors omission of his name.



Table I

Population of U.K. and U.S.A.  
(thousands)

	<u>U.K.</u>	<u>Index</u>	<u>U.S.A.</u>	<u>Index</u>
1920	--	-	117,823	100
1921	44,178	100	---	-
1937	47,289	107	128,961	109
1946	49,217	111	141,389	120
1956	51,208	116	168,174	143
1975 Est.	53,000	120	227,000	193

Table II

Steel Supplies and Apparent Consumption  
(000 ingot tons)

	<u>1947</u>	<u>% of Prod'n</u>	<u>1951</u>	<u>% of Prod'n</u>	<u>1956</u>	<u>% of Prod'n</u>
<u>U.K.</u>						
Crude Steel Production	12,725		15,639		20,659	
Plus Imports	475	3.7	561	3.6	1,771	8.6
	<u>13,200</u>		<u>16,200</u>		<u>22,430</u>	
Less Direct Exports	1,950	15.3	2,674	17.1	3,287	15.9
Apparent Consumption	<u>11,250</u>		<u>13,526</u>		<u>19,143</u>	
<u>U.S.A.</u>						
Crude Steel Production	75,798		93,928		102,872	
Plus Imports	38	--	2,631	2.8	1,393	1.4
	<u>75,836</u>		<u>96,559</u>		<u>104,265</u>	
Less Direct Exports	7,651	10	4,071	4.3	5,415	5.3
Apparent Consumption	<u>68,185</u>		<u>92,488</u>		<u>98,850</u>	

below 80% capacity and still to make satisfactory profits. This has yet to be tested in Britain.

The demand for steel in any country can rise for one of three reasons: either that the population itself grows; that consumption per head rises; or that exports increase.

The U. S. population has grown, and will continue to grow, considerably faster than that of the U.K. A rising demand for U.S. steel is, therefore, a reasonable expectation, at least in proportion to the rise in population; but the British industry can not look forward to this factor.

The future of the British steel industry must, therefore, be mainly in an increase in the apparent consumption per head and in exports. There is likely to be a continuation in the increasing standards of living of the British which will result in a greater consumption of steel per head, but it is probable that most demand will come from expansion in direct and indirect exports of steel.

Table III  
Steel Consumption Per Head  
(ingot lbs.)

	<u>1948</u>	<u>1956</u>	<u>% Increase</u>
U.K.	619	840	36
U.S.A.	1,132	1,317	16½

Steel can be exported either directly or in the form of manufactured goods. Increases in such exports have been a feature of Britain's post-war economy. As will be seen

from the figures in Table IV, these are the main reasons why British production has been able to increase in step with the American. During the periods indicated, direct exports of steel could have been very much greater than they actually were. They were voluntarily restricted by the industry (when prices much in excess of domestic prices could have been obtained for most of the period) in order not to starve the domestic steel using industries.

Table IV — Exports: 1938-1957

	<u>Iron &amp; Steel and further Manufactures</u> <u>£ million</u>	<u>% of Total U.K. Exports</u>
1938	166	35
1947	517	45
1950	1,009	46
1951	1,142	44
1952	1,256	49
1953	1,252	48
1954	1,297	48
1955	1,441	50
1956	1,609	51
1957	1,736	52

The figures in Table IV illustrate that the world (and particularly the under-developed countries) is the British steel industry's ultimate market.

The long-term prospects for continued increases seem to be fairly good. The future of the free world seems to

**Table V**  
**Percentage Distribution of Net Finished Steel**  
**Deliveries by Product Groups**

<u>U.K.</u>	<u>Product Group</u>	<u>1947</u>	<u>1956</u>
	Tubes and Pipes	7	9 (b)
	Thin flat products	23	23
	Plates	16	16
	Heavy structurals	13	12
	Other	41	40
		100	100
<u>U.S.A.</u>			
	Tubes and Pipes	10	12
	Thin flat products (a)	36	43
	Plates	10	9
	Heavy structurals	8	7
	Other	36	29
		100	100

- (a) Including sheet, coated and uncoated, hoop and strip  
(b) Of which about 37% is exported

depend on the development of backward countries and in the initial stage the main demand must be for capital goods and, therefore, heavy steel.

Table V shows that, comparatively, the British industry is more dependent upon a demand for heavy and constructional steel than the American, where the growth has been very largely in thin flat products and in pipes and tubes. A further advantage possessed by the U.K. industry is that it has been traditionally occupied with the export trade, whereas the U.S. industry has never exported a large proportion of their production either directly or indirectly (except in times of War).

As indicated earlier, Britain relies more heavily on imported ore although the American trend is also upward.

**Table VI**

	<u>Consumption of Iron Ore and Sinter</u>		
	<u>Domestic</u>	<u>Imported</u>	<u>Sinter</u>
	(long tons per ton of pig iron produced)		
<u>U.S.A.</u>			
1947	1.476	0.056	0.268
1951	1.385	0.092	0.335
1956	1.127	0.224	0.371
<u>U.K.</u>			
1947	1.127	0.736	0.279
1951	1.126	0.667	0.366
1956	0.787	0.719	0.585

It is interesting to note that Britain has advanced more rapidly in the use of sinter although this lead will be reduced by the large programs now under way in the U.S. (See Table VI.)

While the National Coal Board has promptly met all the requirements of the British steel industry, American private ownership of coal gives a distinct advantage. Here, as in iron ore, however, additional capital is required for these operations.

A British report resulting from a visit to American steel mills in 1951 found productivity in the U.S. was considerably higher than in the U.K. Reliable figures of comparable labor productivity are difficult to obtain but it has been published that output per man hour has increased by 28.2% in the U.S. over the period 1947-1956. The figure for the U.K. is in the neighborhood of 45%.

Allowance should be made for the different end products of the various companies, as well as for the ownership of coal and iron ore mines, etc. Table VII, which shows for a few companies the percentage of total gross income taken by labor costs, is interesting.

**Table VII**

<u>U.S.A.</u>	<u>%</u>	<u>U.K.</u>	<u>%</u>
U.S. Steel	39.8	United Steel*	22.2
Armco	27.3	Colvilles	17.1
National	29.0	Stewarts & Lloyds*	25.4
Republic	33.5	*(These two companies mine nearly all their own ore)	

The relative cost of labor in the two countries must continue to be the dominating factor which will keep British output per man lower than the American for many years to come.

A comparison of *prices* is one indication of relative efficiency, as can be seen in Table VIII.

Another approach in an attempt to compare productivity in the two countries could be in the use of fuel. Here again, however, conditions are so different that direct comparison is impossible. It is, however, worth recording that one of the new blast furnaces of the Steel Company of Wales, which operates substantially on imported ore, is regularly producing at a coke consumption rate of 14½ cwt per ton of iron. The latest available figures of the *average* consumption in the U.S. is 17 cwt.



Table VIII

Comparison of U.K. with U.S. Home Trade Prices  
(on a comparable basis)

<u>1st January 1958</u> <u>Product</u>	<u>Per ton of 2,240 lbs</u> <u>Open Hearth Steel</u>	
	<u>U.K.</u>	<u>U.S.A.</u>
Billets	£ 33.11.6	£ 37.17.0
Angles	40.9.0	50.9.0
Joists	40.5.0	51.5.0
Plates	44.19.6	54.13.0
Rails	41.7.6	46.12.0
Bars	41.7.0	52.9.0
Reinforcing Bars	40.16.6	52.9.0
Strip	45.6.6	52.1.0
Sheets	53.16.0	57.17.0
Tin plate	3.7.1½	3.13.5
(per basis box)		

## BRITISH LABOR OUTLOOK GOOD

It is a widely held view that, in general, labor in the U.S. is much more productivity-minded than in the U.K. This is undoubtedly true of industry as a whole but the British steel industry's relations with its labor force and the successes it has had in increasing productivity are particularly good. Whatever the reason, the fact remains that, apart from the General Strike in 1926, there has been no major strike in the British steel industry in living memory, while since the war there have been four major strikes in the U.S.A.—1946, 1949, 1952 and 1956, which are estimated to have cost as much as 50 million tons of ingot production in total.

The basic difference on the labor front between the two

countries is that while in the U.S. there is virtually one union, in the U.K. there are at least 17 unions with which the industry must negotiate.

In July 1957 the average weekly gross earnings in the American Steel Industry averaged £385.0 against a figure of £139.0 in the U.K. These figures are not completely comparable but give some indication of the different levels.

At present, both industries appear to be happily situated so far as labor relations are concerned. However, a factor likely to influence U.S. negotiations in 1959 is that the president of the United Steel Workers, David MacDonald, who has been all-powerful for some time, has recently had his position very seriously threatened by another candidate. This is likely to make him a much tougher negotiator than he might otherwise have been.

## RENATIONALIZATION IN PERSPECTIVE

It is regrettable that a study of the steel industry is not complete without interposing a chapter on politics.

The Socialist Party has, however, declared its intention to renationalize the industry if returned to power as the Government of the country and consequently it is pertinent briefly to re-capitulate the history of nationalization in the U.K. in order to put the threat with which the industry is faced into perspective.

In the General Election of 1945, the Socialists were elected with a clear majority and a mandate from the electorate for the nationalization of certain industries including The Bank of England, Coal Mines, Air Lines, Railways, and Gas and Electric.

An Act was also on the statute book to nationalize the Steel Industry, but the vesting date was postponed until after the following General Election.

Table IX

Index of Trading Profits before Depreciation (1950-1952 = 100)

<u>British Companies</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>
Colville	94	101	98	145	157	212
Consett	130	120	122	186	244	281
Dorman Long	104	124	127	182	162	188
Lancashire Steel	95	87	94	140	142	105
South Durham	104	153	177	188	220	349
Steel Co. of Wales	171	156	289	369	289	383
Stewarts and Lloyds	119	117	114	126	154	173
J. Summers	104	78	155	256	277	328
United Steel	121	172	183	250	242	330
<b>British Total</b>	<b>117</b>	<b>124</b>	<b>146</b>	<b>195</b>	<b>197</b>	<b>243</b>
<u>American Companies</u>						
Allegheny	64	123	83	187	187	157
Armco	87	107	108	157	145	130
Bethlehem	80	136	126	168	150	172
Granite City	83	142	103	255	291	210
Inland	63	117	126	162	169	183
National	76	111	76	100	106	100
Republic	71	126	91	133	140	132
U. S. Steel	74	133	111	174	161	185
Youngstown	80	118	92	163	161	156
<b>U.S.A. Total</b>	<b>75</b>	<b>125</b>	<b>103</b>	<b>157</b>	<b>151</b>	<b>158</b>

Table X — Financial Analysis

BRITISH COMPANIES (Year ends Sept. 30th 1957)	Equity Price	B/S Asset Value	Earnings per Share	Price Earnings Ratio	Dividend per share	Yield	
	Shillings	(1957)	Shillings	Ratio	shillings	%	
	31.12.58	as % of Equity Market Value	(1957) (a) (c)	(1957) (a) (c)	(1957) (1958) (b) (b)	(1958) (b)	
Colvilles	31	203	11.25	2.8	2.6	2.6	8.4
Consett	20	197	4.68	4.3	1.75	1.75	8.8
Dorman Long	28.5	203	8.12	3.5	2.0	2.4	8.4
Lancashire Steel	32	188	5.92	5.4	2.4	2.8	8.8
South Durham	28.5	168	6.9	4.1	2.0	2.4	8.4
Steel Co. of Wales	23	113	3.0	7.7	1.6	1.8	7.8
Stewarts and Lloyds	31	165	9.65	3.2	2.2	2.2	7.1
J. Summers	42.5	98	6.86	6.2	2.8	3.2	7.5
United Steel	29.5	132	6.56	4.5	2.3	2.5	8.5
U.K. Averages (Unweighted)		163		4.6			8.2

(a) After paying all company taxes.

(b) Before British income tax at 42½%

(c) Preliminary figures for the year ended 30th September 1958 have now been published for all the leading British steel companies. Percentage changes over the 1957 profits before taxation but after depreciation are indicated as follows:

Colvilles	- 9%	South Durham	+ 38%
Consett	- 44%	Steel Co. of Wales	+ 21%
Dorman Long	- 4%	Stewarts and Lloyds	- 22%
Lancashire Steel	+ 44%	J. Summers	+ 14%
United Steel - 4%			

#### NOTES.

It will be noticed that on average -

(a) the P/E Ratio for U.K. is 4.6 (against 21 for U.S.A.)

(b) the yield on the British shares is 8.2% before British tax (4.7% after tax) against only 3.8% on the American shares.

In the General Election of 1950 the Socialists were again returned to power, but with a very much reduced majority. The Steel Industry, was accordingly vested into public ownership on Feb. 15, 1951.

The life of the 1950 Socialist Government was, however, short and at another General Election which ensued in 1951 the Conservatives were elected with a small but clear majority in the House of Commons and with a mandate to return the steel industry to private ownership.

To ensure that the Industry would not again become a

plaything of the politicians, the Conservative Government set up the Iron & Steel Board to exercise general supervisory powers over the Industry.

By March 1958, the equity of all the major steel companies, with the exception of one (Richard Thomas & Baldwins Ltd.) had been sold by the Government and was back in private ownership.

It was hoped, in view of the powers already available to the Government through the medium of the Iron & Steel Board, that the Socialists would leave the industry un-



Table XI — Financial Analysis

AMERICAN COMPANIES	Equity	Balance	Earnings	Price/	Dividend	Yield
	Price	Sheet	per share	Earnings	per	%
	31 Dec.	Asset	12 months	Ratio	Share	
	1958	Value	to Sept.	(1958)	(1958)	
(Year end Dec. 31, 1957)	\$	as % of	1958		\$	
		Market	\$			
		Value				
		(1957)				
Allegheny	46 1/8	60	1.16	40	2.00	4.3
Armco	66 1/4	64	3.00	22	3.00	4.5
Bethlehem	52 3/8	64	2.70	19	2.40	4.6
Granite City	61	61	3.87	16	1.60	2.6
Inland	144 5/8	49	8.35	17	4.50	3.1
National	75 3/4	78	4.39	17	3.00	4.0
Republic	75	60	3.27	23	3.00	4.0
U.S. Steel	96 1/4	51	5.12	19	3.00	3.1
Youngstown	117	108	6.42	18	5.00	4.3
U.S. Averages (Unweighted)		66		21		3.8

disturbed; but their policy statement pamphlet "Industry & Society," published in July 1957, clearly indicates that if returned to power, it is their intention once again to nationalize the industry.

As the policy statement was subsequently endorsed by the Labor Party Conference in October 1957, this threat must be taken seriously.

Compensation in the nationalization of the steel stocks was based on an average of past quotations on certain selected dates and was satisfied by the issue of an equivalent value of transferable British Government stock.

In 1951 Mr. Strauss, who was Minister of Supply in the previous Labor Government, threatened to renationalize the industry at the price it was sold to the public less any dividends in excess of the 3½% Government Stock issued to pay for the companies earlier.

Since 1953, however, no further reference to compensation is traceable to any responsible spokesman of the Socialist Party. Certainly in the pamphlet quoted above, "Industry & Society," no mention is made of compensation in regard to the Iron & Steel Industry, although in the

discourse on the extension of nationalization to other industries the policy statement goes out of its way to emphasize that "full and fair compensation will, of course, be paid."

Figures alone will not, of course, suffice to provide a clear-cut comparison between the two industries or between any two companies. But the statistics, as shown in Table IX, considered with the short details of the companies in Tables X and XI, throw a light on the very different evaluation which is placed on steel shares in the two countries.

It is noteworthy not only have the profits of the British Industry grown more than the American, but its growth has been uninterrupted.

#### CONCLUSION

The preceding comments have shown that intrinsically the British Industry has many attractions for the investor over the American. It is patent that should the British Steel Industry not be renationalized for any of the various reasons which might materialize, the shares could then rise very considerably to levels in keeping with their merits.

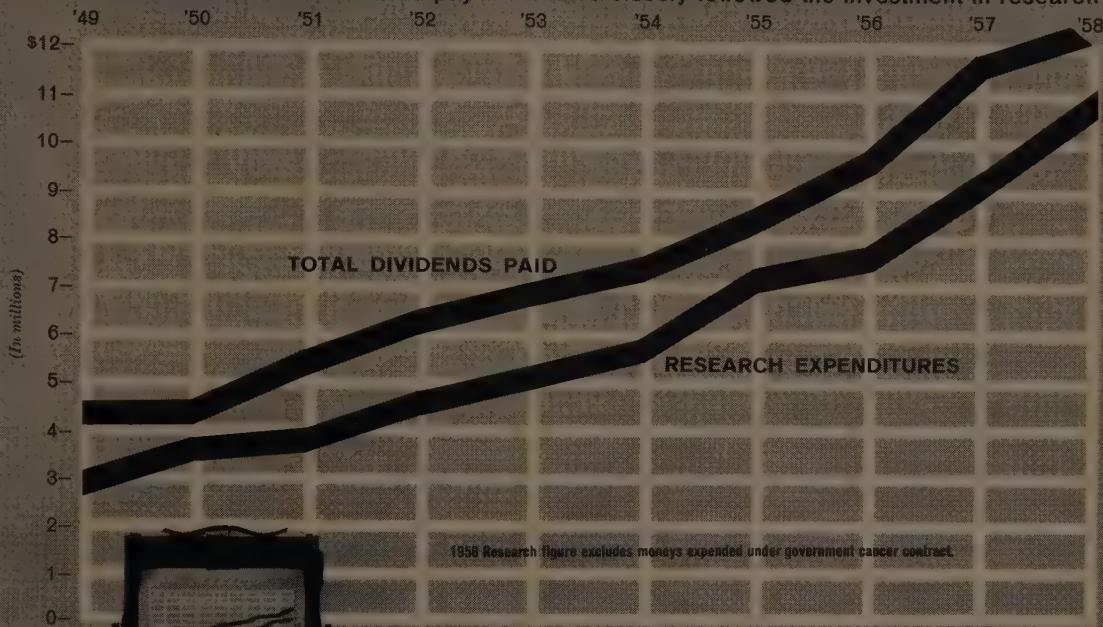
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"The evolution of government and Stock Exchange regulations provides the machinery for preventing illegal manipulation. And, finally, a *virtually new profession, devoted to securities analysis, makes available to the public the detailed data necessary for sound investment decisions.*"

—G. Keith Funston, President, New York Stock Exchange

# Pfizer in focus

This chart shows how dividend payments have closely followed the investment in research



## A graphic picture of how research leads to human and corporate dividends

● As the graph above indicates, increasing dividends paid to the 30,000 Pfizer share owners, rise in a pattern that closely follows the rise of Pfizer research expenditures. And as earnings and sales increase, more investments in research and development are made in this continuous cycle of conquest over human disease and want.

One of the most significant of many developments emerging from Pfizer's record 12 million dollar research program last year is Diabinese, the new oral drug for diabetes. Last year also saw: further research and development in the vital field of antibiotics... agricultural discoveries which make possible striking weight gains in livestock and poultry... and developments leading to improved fine chemicals for food, beverage, medicinal and industrial uses.

All over the world Pfizer continues to expand its plant-building and marketing activities—with products now being manufactured in 19 countries abroad and sold in over 100.

### ANOTHER RECORD YEAR

	1958	1957
Net Sales.....	\$222,726,103	\$207,151,629
Net Earnings.....	23,965,144	22,908,544
Dividends Paid.....	12,251,623	11,466,648
Per share of common stock:		
Earnings.....	\$4.43	\$4.22
Dividends paid.....	2.25	2.10



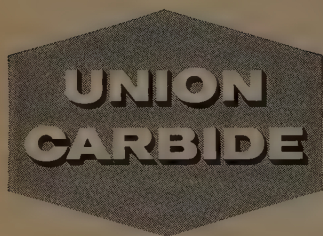
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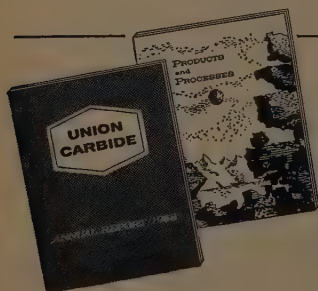
## UNION CARBIDE CORPORATION

### 1958 Annual Report Summary

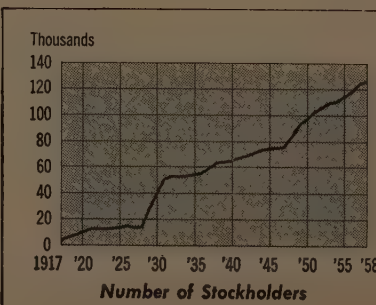
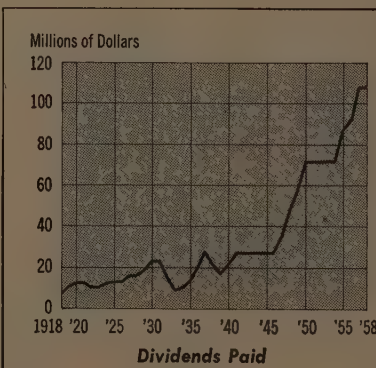
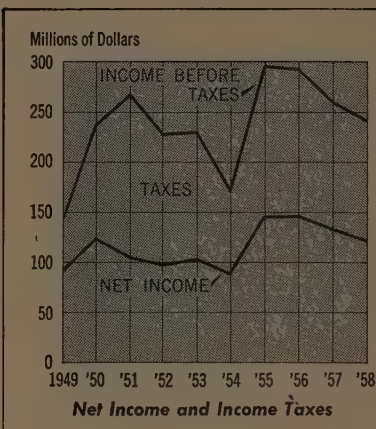
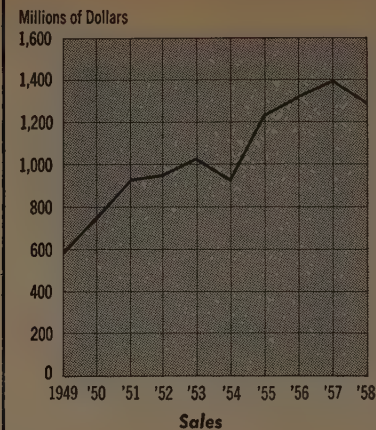
	<u>1958</u>	<u>1957</u>
Sales.....	\$1,296,532,373	\$1,395,032,817
Net Income.....	124,936,845	133,740,818
Per Share.....	4.15	4.45
Dividends Paid.....	108,265,402	108,307,512
Per Share.....	3.60	3.60
Earned Surplus.....	622,201,752	605,530,309

Current Assets.....	\$ 653,350,387	\$ 639,190,691
Current Liabilities.....	213,802,203	216,302,892
Total Assets.....	1,530,476,376	1,456,353,350

Shares Outstanding.....	30,093,183	30,067,123
Number of Stockholders.....	126,739	123,943
Number of Employees.....	71,500	77,000



Copies of the complete 1958 Annual Report of Union Carbide Corporation will be furnished on request. An illustrated booklet describing the products and processes of Union Carbide also is available. If you wish copies of these booklets, please write to the Secretary, Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y.



# New Pharmaceutical Frontiers

... effective cancer treatment believed near

by Mortimer J. Fox, Jr.

APPRAISAL OF THE PHARMACEUTICAL INDUSTRY by the investment community has undergone a rapid and profound change in recent years. This perhaps reflects the very radical change which has taken place in the industry.

As late as the 1930's, the industry was still small, and for the most part owned by the founding families. There were perhaps 1,100 companies, with total sales volume of less than \$200 million. There was no single company with a volume over \$35 million, and there was but a small handful of companies whose issues were available to the investment public. Today, the industry's sales are well over \$2 billion. There are probably a dozen companies each with sales over \$100 million; and there are at least 25 companies whose issues are generally available to the public. The total market value of these issues is over \$5 billion.

This sharp contrast has developed in the short space of 25 years. It reflects in large measure the metamorphosis of a rapidly growing industry and the resultant awakening of public and investment interests. What is the outlook now? Is the market place projecting this rapid growth in sales and earnings into the future; and, if so, is this overly optimistic? Can the phenomenal growth record be continued? Will sales and earnings expand as quickly in the next decade as in the recent past? Only the future will tell. But examination of some of the major component factors may assist in arriving at some intelligent guesses as to what that future may be. The object of this article is two-fold: to provide background information and data against which the maturity and direction of the industry can be evaluated; and to illustrate the application of that data by examining the behavior and problems of a specific company.

## FUTURE OF THE DRUG INDUSTRY

The pharmaceutical industry is unique in many respects, but above all it is among the more rapidly growing industries in this country. As shown in the accompanying chart, the industry grew from sales of less than \$200 million in 1939 to more than \$650 million in 1949 and will probably approach \$2 billion in 1959, a ten-fold increase in twenty years. One competent study places industry sales near \$4 billion by 1970 and over \$5 billion in 1975.

These figures represent sales at the manufacturer's level of ethical products, which consist of drugs promoted ex-

clusively to the medical and pharmaceutical profession. They represent the tremendous progress made in pharmaceutical research in the last two decades. Sales of proprietary drugs, or those advertised to the public, and animal health products would be in addition to these figures.

It is a highly competitive industry. There are probably over 1,300 companies in the pharmaceutical industry; and no one company has over 10% of the total market. A dozen companies do about two-thirds of the total volume. In many other industries the number of major companies has been reduced to but a handful.

It is a highly regulated industry. At the present time, there are 10 federal government administrative agencies with regulatory authority over the industry. In addition, there are state and local bodies which must be satisfied.

It is an increasingly investigated industry. Currently under way are investigations by the:

Federal Trade Commission (Antibiotics),  
Anti-Trust Division (Salk Vaccine Manufacturers),  
Kefauver Committee (Prices and Profits), and  
Congressman Fountain's Committee (which intends to look into the National Institutes of Health generally, and the Health, Education and Welfare Department's patent policy).

Government regulation and public investigation might be interpreted as further signs of maturity. If so, the industry should be pleased rather than disturbed that it has reached this level of success. The pharmaceutical industry has assumed tremendous responsibilities to the public in the health area, and in consequence is spending millions of dollars annually in research and education. In the discharge of these responsibilities, it has set high standards. It must be sure that it maintains these standards in all levels of operations, whether in research, marketing or elsewhere. If it is sincere in the way in which it does this, investigations will be reduced to mere sound and fury.

It is an industry with rather unique problems. It does not promote to the ultimate consumer. In the United States, for example, it promotes its products primarily to some 200,000 doctors and about 100,000 pharmacists. In addition, there are some 7,000 hospitals to be reached. The promotion problem is essentially one of helping the professional man to keep well informed. To accomplish this, the industry uses a variety of approaches, all of which are costly: the professional service representative on a personal call basis; generous sampling; and advertising by mail and in professional and trade journals. The primary target of this activity is an extremely busy man who is hard pressed to keep up with new developments which result in a rapid flow of new products and new uses for those products.

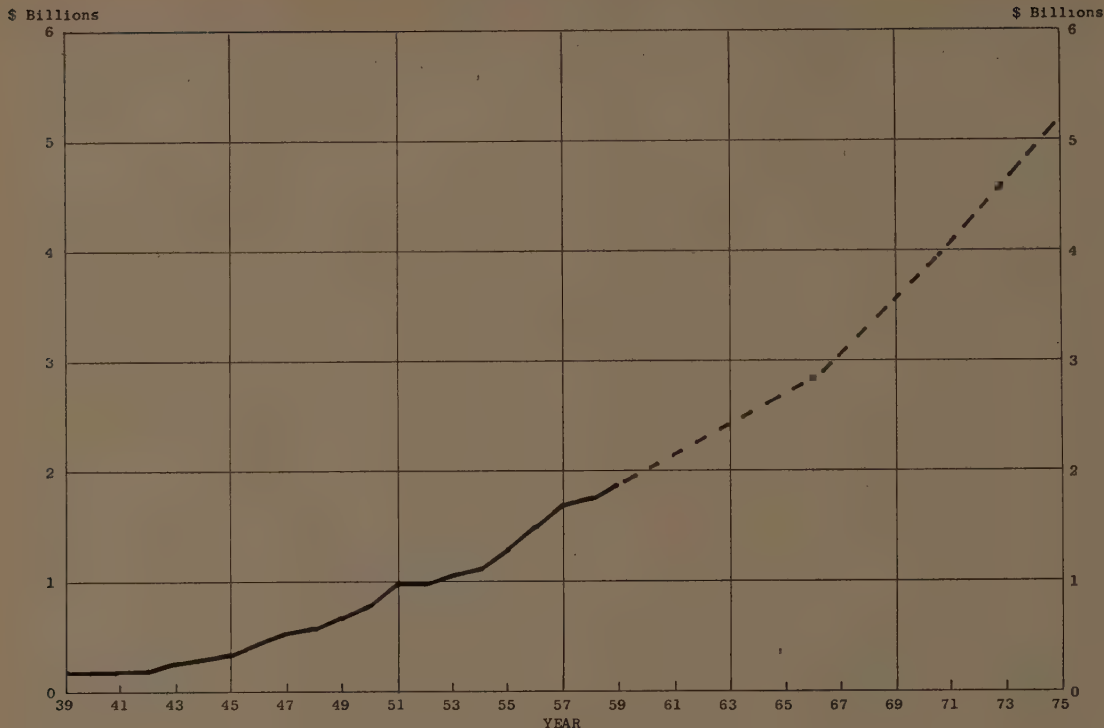
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*Mortimer J. Fox, Jr., is vice president and treasurer of Schering Corporation and a director of several Schering subsidiaries here and abroad, as well as being a director of American Scientific Laboratories, Inc., and the Research Institute for Medicine and Chemistry. He holds a P.H.D. from Yale and a M.B.A. from Harvard.*



# ETHICAL PHARMACEUTICAL SALES

1939 to 1975 Projected



## DRUG RESEARCH VERY COSTLY

Another large element of cost to the manufacturer is the growing effort put into research. A multiplicity of skills selected from the chemical, physical, biological and medical sciences is required to develop a new drug. Over the past decade, the average number of new single chemicals introduced as pharmaceutical products was 39 per year, and the average is typical of most of the last 10 years. Nevertheless, during this period the industry expenditures for research have increased five-fold.

For the most part, the industry distributes through about 400 wholesalers and probably 55,000 retail pharmacies. Distribution costs are high because pharmaceutical products must be available immediately in every pharmacy to meet the urgent day and night needs of physicians and their patients. The unit purchase per person is small, averaging \$3.08 per prescription. As a safeguard, the law requires that drugs be dispensed only by a licensed pharmacist—the only retailer required to have a college degree. It costs as much to distribute pharmaceuticals to the ultimate consumer as it does to research, manufacture and promote them.

In studying the industry, proper consideration should be given to its changed role in medicine. Pharmaceuticals are assuming an increasingly important role in health, and, due to the increased effectiveness of drugs, hospitalization has been minimized. The economy as a whole has benefited because of the number of lives saved, and because of the decrease in time lost from common illnesses.

## ONLY SURFACE HAS BEEN SCRATCHED

However, the industry is acutely aware that it has only scratched the surface of possible products and developments. Although its post-war achievements are impressive, they show that only a small beginning has been made when viewed against the diseases to which men are subject and for which there are as yet no suitable remedies. Table I shows the *incidence* of diseases. In many of the important categories there are no drugs of consequence which can be considered *cures*. In some areas, considerable markets have been established for *palliatives* or agents which *relieve*. As the industry gains more knowledge and as it increases its effort, it should be able to come closer to finding substances which will cure.

The three most common *causes of death* from disease are stated (by the Metropolitan Life Insurance Company) to be:

- (1) Diseases of the heart.
  - (2) Malignant neoplasms (cancer).
  - (3) Vascular lesions affecting the central nervous system (stroke).
- (1) and (3) are shown together in Table I as "Cardiovascular—Renal."

Without attempting to establish any dramatic timetable, the industry believes that it may be at the threshold of finding products which will be of value in the treatment of such diseases, even though it may be a long way from their cures.

**Table I**  
**U. S. Pharmaceutical Frontiers**

Disorders	Est. No. of Cases (in 000's)	U.S. Deaths in 1957 (in 000's)	Pharmaceutical Approach Treatment	Cure
Allergies .....	15,000		Good	Fair
Arthritis and Rheumatism ....	11,000		Good	None
Cancer .....	700	255	Poor	None
Cardiovascular- Renal .....	14,000	892	Fair	Poor
Diabetes .....	1,600	28	Good	None
Dysmenorrhea ....	20,000		Good	Fair
Gastrointestinal ...	12,000	24	Good	Fair
Mental and Nervous	16,000		Fair	Poor
Pneumonia and Influenza .....	3,200	61	Good	Fair
Tuberculosis .....	800	13	Good	Good

Needless to say, the pharmaceutical industry is research-minded. Research expenditures by the industry have increased from \$35 million in 1947 to \$170 million in 1958. In addition, the federal government has a research budget in the medical area of over \$200 million, a more than seven-fold increase in a decade. This ever-increasing probing and study causes mixed blessings. It widens industry knowledge and increases the number of useful substances available to the medical profession. However, it also increases the rate of product obsolescence and compounds the physician's problem of keeping abreast with the latest developments.

Perhaps this can best be summarized by saying: *The industry appears to be at an explosive stage of development.* It should be emphasized, however, that scientific discoveries cannot be bought with dollars alone, nor is there any guarantee that break-throughs can be achieved on a crash basis. Research achievement is the result of thought and study.

In all probability the industry will continue to grow at a rapid rate because: (a) as a result of increased research efforts, new drugs will be discovered; (b) the world population is increasing, and more particularly it is aging; (c) there is an ever-widening use of drugs for humans and for animals; and (d) larger segments of the world population are becoming health-conscious and are using drugs.

#### ADDITIONAL MERGERS CITED

There is abundant economic justification for the products and services of the pharmaceutical industry. Health needs are vital needs. Ill-conceived political programs which might destroy the profits necessary to maintain incentives for maximum discovery and development can only be damaging to the public at large.

The rate of entry of new companies to the field will probably be restricted because of the tremendous investment required—not in capital assets, but in technical skills. The trend toward further combination resulting in added financial, research and promotional strength will in all probability continue. This may somewhat affect the erosive effects of competition. It will also place an ever increasing burden on management to keep abreast of the rapidly changing scientific scene, to correctly appraise the commercial implications, and to promptly translate them into production and promotion programs.

#### EXAMINATION OF A COMPANY

In order to illustrate certain criteria which may be useful in the evaluation of an individual company, let us turn from the general to the specific. Too often we tend to analyze a company in empirical terms and in so doing fail to uncover the company's present and potential investment position within its industry. In becoming specific, I must limit myself to the company with which I am intimately familiar, Schering Corporation.

For proper perspective, let us examine, in Table II, the product groups which made up 1958 pharmaceutical industry sales (estimated at manufacturer's level).

**Table II**

Antibiotics .....	\$ 431,000,000
Vitamins .....	250,000,000
Tranquilizers .....	175,000,000
Corticosteroid hormones .....	95,000,000
Sex steroid hormones .....	25,000,000
Other endocrines .....	20,000,000
Biologicals .....	140,000,000
Sulfas .....	42,000,000
Antihistamines .....	41,000,000
Barbiturates .....	38,000,000
Acetylsalicylic acid .....	33,000,000
Miscellaneous ethicals .....	412,000,000
Ethical Sales .....	\$1,702,000,000
Proprietary Sales .....	\$ 550,000,000

What, then, is Schering's market?

Schering Corporation today is a diversified pharmaceutical company serving many areas of medicine. Consolidated sales and other revenues for 1958 were about \$78 million. It serves four principal markets: the ethical market; the proprietary market; the animal health market; and the foreign market. Sixty-nine percent of Schering's sales are to the ethical markets through the Schering organization (57% of sales), and the White Laboratories organization (12% of sales). Separate sales organizations are maintained because of the specialization of the two companies.

Considering the other markets in order of their importance to Schering, the second largest is the foreign, which is served by its international division and various subsidiaries, and which accounts for 21% of sales.

The third largest segment of sales is in the proprietary market which is served by Pharmaco, Inc., accounting for 8% of sales. And, finally, there is the animal health or veterinary organization, which presently accounts for 2% of the corporation's sales, but which is expected to grow quite rapidly in the near future.

Schering is essentially a specialty house. It devotes its efforts and attention to developing, producing and marketing ethical specialties or products which incorporate some unique substance or formula and thereby acquire individuality and identity among physicians and pharmacists. For the most part, these are protected by a patent or a well-established trademark and have proved to be more efficacious and profitable than competitive standard medications. Schering is not a broad line house, as are some of our older competitors who manufacture a wide variety of pharmaceutical products.

It has a strong position in the steroid hormone market,



a leading position in the antihistamine market, and a growing position in the tranquilizer market. In addition, it has specialty and combination preparations such as cold remedies, vitamins and laxatives.

In an industry noted for competitive research and rapid product obsolescence, what management qualities has it demonstrated?

#### IMPORTANCE OF MANAGEMENT

Schering is managed by a fairly young group of executives (average age, 49), possessing, however, considerable years of experience in the industry (average, 18 years). That this management has performed satisfactorily is, I believe, amply demonstrated by the record of return on investment. The average pre-tax return for the last seven years has been 43%, having reached a high of 80% and a low of 20%. In 1958, the figure was 35%. This has required both competitive drive and flexibility.

Schering management demonstrated its capability in establishing a strong competitive position from the discovery of prednisone and prednisolone, two potent substances which revolutionized steroid therapy. These products were brought to the market quickly and in ample quantities. The wide distribution, the broad promotional coverage, and the ample availability of the product raised the sales and profits of the company to a new plateau and opened up new areas for further development.

The present plateau of sales and earnings was achieved in 1955, and reached a high point in 1957. Though it was hardly expected that earnings would continue to climb without interruption, management maintained the earnings plateau in the face of strong cortico-steroid competition by expanding its other markets. Whereas in 1957 almost half of the total sales were in steroids, in 1958 this had dropped to less than one-third. There is evidence that for the moment at least this drop has been stabilized.

In the pharmaceutical industry, the cost of production is relatively low in relation to sales. But the costs of research and promotion are high. And they are increasing. Over 32% of Schering's total income is allocated for promotion, while 8% is allocated for research. In the coming year, these costs are budgeted to increase somewhat more than the increase in total income.

Schering management favors increasing research and promotional efforts and enhancing long-run future potentials even though these may be at the expense of short-run earnings.

Can a company that is 11th in sales compete vigorously in research?

This brings us to the subject of diversification within a specialized field. The major part of Schering's research effort in 1959, and probably for some years to come, will be devoted to steroids. Of the \$7.5 million budgeted for research in 1959, 30% will be spent in this area. If you will refer briefly to the estimated industry sales in Table II, you will note that corticoid and sex steroid hormones are the basis for products which have produced sales in the United States in excess of \$120 million a year due to the great number of uses of these drugs.

The human body's ability to cope with stress, to combat infections, to maintain the mineral balance essential to life,

as well as our reproductive organs, are completely under the influence of nature's steroids. Although we know something about steroids, and although substantial markets have already been attained, we must admit that the relationship of the chemical structure of steroids to their physiological action is known only imperfectly. Based on principles now established and known, it is possible to prepare thousands of new compounds by shifting groups already used to other positions in the steroid molecule to increase therapeutic value and decrease unwanted side effects. As we acquire more basic knowledge, we should be able to fashion molecules designed for a specific action. Consequently, we believe that we are only at the threshold of new horizons in this field.

To mention but a few of these, steroids are involved in cardio-vascular disease, and so we can speculate that a suitable steroid may be developed which will prevent or counteract it. We have some evidence that steroids play a role in certain types of cancer. A high dose of estrogen, for example, will dramatically relieve the pain of prostate cancer and in favorable cases prolong life for several years. Adrenal hormones have beneficial effects in lymphatic tumors and leukemia. These uses suggest that other steroid molecules may be found which will be of still greater value. Steroids seem to have an effect on the central nervous system or brain, since they produce a feeling of well-being or buoyancy and in some cases can cause sedation and even anesthesia. Here is yet another facet of steroid activity which, if isolated, could lead to a whole new group of central nervous system drugs.

In animal husbandry, we use hormones for the treatment of inflammatory diseases in cattle and to fatten animals. We hope that with suitable, tailor-made steroids, we may be able to raise animals that will mature earlier, that will have more muscle and less bone, and that will possess a desirable fat-to-muscle ratio.

#### RESEARCH ON ANIMAL HEALTH

A second area to which considerable effort is being given by the Schering research staff is in drugs for disorders of the central nervous system. This group studies not only tranquilizers but also a wide range of other drugs which may enable doctors to stimulate or otherwise modify the central nervous system.

Research attention is given to profitable segments of the proprietary market. Schering has also stated its optimism regard product development for the animal health market and has increased its potential in this field through the acquisition of American Scientific Laboratories of Madison, Wis. A.S.L., though small, has an excellent research group in the vaccine and biological area, a new field for Schering. While initially it will concentrate its efforts in the animal health area, it appears possible that ultimately it will be in a position to offer vaccines and biologicals in the human market as well.

Schering believes that scientists should be grouped by skills and interest rather than by products. It believes that they should be organized in small groups so that they are always ready to move in new directions as technological developments or leads occur. In this way the company hopes to attain maximum flexibility and alertness to new

developments. It also makes extensive use of grants to foster research in universities and research institutes and is developing an independent research center in Boston which is concentrating for the most part on basic research. It also utilizes its relationships with foreign pharmaceutical manufacturers to pursue cooperative research and product development projects.

Schering wants to continue to develop to the fullest extent its international activities, and here it is proud of the people and the organizational structure it is building. Much time and attention are given to the selection of good people and to the creation of the type of organization which gives them full scope for development. It is hoped ultimately to embrace as partners some foreign associates, as has been done, for example, in the South African subsidiary company where a 49% interest is owned by South Africans.

Schering wants to give further scope and development to the proprietary activity. In order to make maximum use of the resources devoted to proprietary operations, an operation must be able to command large advertising budgets to secure the most effective advertising for the dollars spent. Schering has a good nucleus of products and management upon which to build. It seems desirable to further this development both from within and through acquisition.

#### YOUNGER MEN IN TOP POSITIONS

Schering wants to continue to develop its management. Younger men are being placed in more responsible positions, and the organization is being shifted gradually to create more positions of responsibility. The importance of constantly widening the experience of the supervisory staff is recognized. Considerable attention and time are given to special courses conducted by members of the faculty of the Harvard Business School, and other special consultants in the field of management development and human relations. Personnel evaluation methods are being developed, and methods of periodic review and consultation are being improved.

Schering wants to remain efficient and yet flexible in its operations. The plants have been designed to this end, and the company has demonstrated on several occasions its ability to move rapidly as new developments warrant. It is hoped that it will be possible to continue to do this.

Schering believes that for the immediate future it is better advised to focus its activities within the pharmaceutical industry and those industries which are closely related. There are ample opportunities within Schering's horizons of skills and knowledge. These should be developed more fully before attempting ventures in other fields. Schering wants to remain a specialty house, since in this way it can best serve the medical profession, its patients, and its stockholders.

Schering is alert to the need for maximizing the effectiveness of the dollars spent on promotion. Effort is directed toward arranging the organization of the sales and promotion departments to increase contacts with the professions. Studies on how better to understand the needs of the professions and how better to reach and serve them are

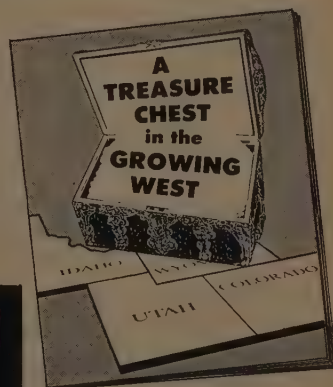
producing information which gives promise of becoming increasingly valuable.

Schering must continue to find ways to maximize the return on the dollars spent for research. This is by far the most difficult of management's problems today, one to which there is no simple solution. Careful consideration of each project before it is undertaken, and periodically as it develops, together with occasional reviews of the entire effort assist in determining where emphasis should be directed. But perhaps more important is an appropriate climate for research to which skilled personnel are attracted, and in which they are given scope to pursue their interests. Schering subscribes to the "bench up" as contrasted with the "director down" philosophy of research management. There is also maximum group participation in the planning of the research program. So far this philosophy and method of administration have been productive.

These are but a few of the characteristics of an individual company. Obviously, they must be weighed along with many other factors. In appraising a company's growth potential within its own industry—particularly the pharmaceutical industry with its dynamic obsolescence—two words seem to warrant particular attention above all else: *Alertness* and *Flexibility*.

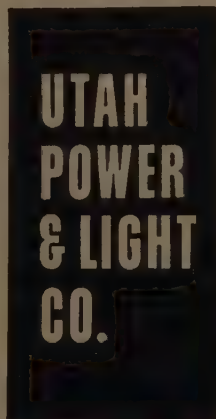
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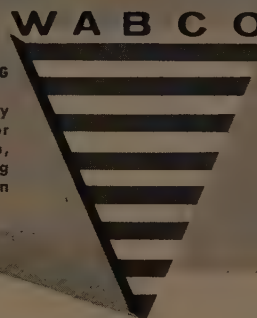
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## 1958 Financial Highlights

	1958	1957
Net Sales .....	\$206,263,108	\$236,977,411
Income Before Income Taxes .....	17,681,313	24,600,670
Income Taxes .....	8,883,000	12,513,000
Net Income .....	8,798,313	12,087,670
Cash Dividends Paid .....	5,019,574	5,016,877
Retained Earnings for Year .....	3,778,739	7,070,793
Property Additions .....	3,437,200	5,407,770
Provision for Depreciation .....	5,158,556	5,108,557
Working Capital, December 31 .....	98,060,381	96,514,702
Long Term Debt, December 31 .....	38,650,000	40,076,000
Shareholders' Equity, December 31 ..	110,414,217	106,614,106

## per share data

Income Taxes .....	\$ 2.12	\$ 2.99
Net Income .....	2.10	2.89
Cash Dividends Paid .....	1.20	1.20
Shareholders' Equity, December 31 ..	26.39	25.49
Number of Shareholders, December 31:	38,299	



**WESTINGHOUSE AIR BRAKE COMPANY**  
Three Gateway Center, Pittsburgh 22, Pa.

# Railroads Aim to Win Battle

.... against competitive subsidies, featherbedding and unfair taxes

by Daniel P. Loomis

THE ENDURANCE, strength and vitality of nations can often be measured by a simple economic yardstick: What part of the total output of goods and services is continually plowed back into new plant and equipment? How much in consumer goods will a people forego today in order to build up the capital potential for expanded production tomorrow?

Capital investment levels directly affect the quality, quantity and price of goods and services and go far to determine standings in the race for supremacy in world markets. There is no question but that Soviet Russia is all the greater menace it is today because of the outsized proportion of her economic effort going into new capital formation. This division is carried out under rigid state controls that barely tolerate a minimum level of current consumption.

Competitive industries are no different than competitive nations.

Where customers are confronted with a wide variety of goods offered in abundant quantities, that industry succeeds which manages best to acquire the means for continuous expansion and modernization of facilities. This ultimate factor conditions the comparative attractiveness of goods or services and their prices—twin determinants of who gets the customer's choice.

Transportation today depicts this hard fact of competitive economic life as few other industries do.

## RAILROADS SPENT \$14 BILLION

Though railroads in the years since World War II have striven mightily to amass capital funds for plant improvements—and have, indeed, succeeded in surprising measure—their courageous private efforts have been no match for the profligate outpouring of public investment in facilities used by other forms of transportation.

Railroads have spent more than \$14 billion of private capital in the postwar years for modernization aimed at cutting operating costs and improving services. But what was Washington doing meanwhile for competing forms of transportation?

Stated simply, federal spending for new highways, inland waterways, airports and air traffic control systems was taking off like a rocket. Expanded highway programs, for example, envision greater public investment on roads in the next few years than all the private capital invested in the past 130 years to create the great rail backbone of the nation's transportation network.

The objective student can only conclude that the central

transportation problem of the present—the railroad problem, as well—is the complete absence of true economic competition in freight and passenger hauling. Competition where prices offered by all contenders reflect full costs of providing service is unknown. When government pours out unrecovered billions for air, water and highway facilities used avidly by carriers in direct cost competition with the fully self-supporting railroads, something's got to give.

To the nation's detriment, that "something" has been the railroads. The following changes have been the inevitable consequences of this one-sided struggle:

The railroads' share of intercity freight traffic has fallen from 67% in 1945 to about 45% today. Their share of commercial intercity passenger traffic has dropped from 73% to some 30% now.

Motor trucks, meanwhile, boosted their share of intercity freight traffic from 6½% in 1945 to a current 20%.

Inland waterway operators, excluding the Great Lakes, raised their share of total freight movements three-fold from 3% to about 9%.

Motor busses increased their share of commercial intercity passenger traffic from 21½% to a current 31%.

Air carriers dramatically raised their share from 3% to a full 36%.

Railroads can survive, and thrive, in competition with carriers whose rights-of-way and other essential costs are partially paid for out of public taxes only by massive exploitation of their inherent advantages. These lie in the ability to move enormous volumes at diminishing costs and charges. No other carrier can approach the full-cost economy of rail transportation in this respect.

In giving this unmatched capability maximum leeway lies the railroads' competitive key to the future. This calls for further drastic changes in operating methods and services. Railroads are stripping down for action. They are cutting out the deadwood of unpatronized services and concentrating effort and resources in areas of greatest promise. Railroadmen realize that, in the face of subsidized competition, they must not simply rise to a comfortable peak of efficiency but go on beyond, exerting superhuman effort to deliver super service to the public.

Massive exploitation of the railroads' innate advantages dictates massive new investment in facilities that will permit railroads to operate at lowest possible costs.

It also demands a new climate of cooperative labor-management relations that will clear the way for drastic changes and permit maximum returns to be reaped from new devices and new methods.

This, in turn, calls for the elimination of featherbedding wastes and the complete overhaul and streamlining of work

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*Daniel P. Loomis is president of the Association of American Railroads. Mr. Loomis, who holds a LL.B. from Harvard and a LL.D. from Middlebury, has been associated with railroads since 1928.*



rules that are tailored to operating conditions of a half-century ago.

Had it not been for the capital investment of \$14 billion in the past 13 years, the railroads in all likelihood would long ago have ceased to exist as we know them today. At least a like amount should be spent in just the next 10 years, however. This investment level, which averages out to nearly \$1½ billion a year, assumes that the railroads can maintain their present share of total business. If the changes now being pushed in operations pay off in a greater share of traffic, then even this huge program will have to be enlarged.

The availability of investment funds thus becomes the industry's Number One problem. Clues to potential sources are revealed by looking at where postwar funds came from. About a third of the total, or \$4.6 billion, came directly out of net income—retained in the business and plowed back into improvements. Borrowings, mostly in the form of equipment obligations, accounted for another \$2.2 billion. A little more than a billion dollars was raised from other sources, principally by drawing down working capital.

Most significantly, the remaining \$6.1 billion, or nearly half the total, came from depreciation accruals—non-taxed funds earmarked out of income for use in replacing worn-out capital property.

It is obvious, then, that the tax treatment of investment money is of crucial importance—and nowhere more so than in an industry where profits have shrunk drastically. The railroads' rate of return on net investment in 1957 was about 3 1/3%, and this dropped to only 2¾ in 1958.

An idea of the weight of the railroad tax burden lies in the fact that postwar railroad tax payments to all federal, state and local government units almost exactly match the railroads' postwar capital spending. If any sizeable part of that tax load could have been plowed into improvements, the railroads would have an even more efficient plant today, and would be in a far stronger competitive position.

#### TAXES: RAILROADS' DILEMMA

It may indeed be, as Interstate Commerce Commission Examiner Howard Hosmer recently stated in a report on the passenger problem, that "the railroads are defenseless against tax assessors who seemingly are bent on killing the goose that lays the golden eggs." But railroads will continue to fight with all their power for a break on taxes. Much of their future capacity to serve the nation rides on the outcome.

Three tax deferral measures, which would have made available to the railroads more funds for investment purposes, were considered by the last Congress, only to be passed over in the closing days of the session. These measures, passage of which is being sought again in the 86th Congress, concern the tax treatment of funds set aside for capital investment purposes.

Relatively little free cash is available from present depreciation rates, due to the unusually long lives assigned railroad depreciable property. Railroad depreciation schedules reflect approximate lives of 40 years. This has resulted in an average annual rate for depreciating property of little more than 2%.

Such a meager flow of non-taxed cash is hopelessly inadequate for investment needs in an era of continuous inflation of prices. It also poses competitive disadvantages for railroads. Aircraft, by way of comparison, are depreciated over a period of five to seven years, and heavy trucks and busses, for long-distance use, in eight and seven years, respectively.

The realistic remedy is to allow railroads to recover their capital costs in a much shorter period of time than presently allowed. One of the proposals being pressed in Congress would ascribe a 15-year maximum depreciable life to rolling stock and a 20-year maximum life to other depreciable property. Under such a proposal, accelerated rates of obsolescence of existing equipment and modern requirements for faster turn-over of plant would be recognized.

Another proposal would provide for reinvestment depreciation allowances in the tax treatment of investment funds, as recognition of the devastating impact of price inflation on a company's ability to retire and replace capital facilities. This would take account of the fact that dollars recovered today by way of depreciation accruals go less than one-third of the way toward procuring new capital facilities as replacements for those being retired. For example, a freight car which 20 years ago cost \$2,500 is priced at some \$8,500 today. And to obtain the \$6,000 balance, a railroad must earn, before taxes, more than \$12,000.

#### STABILIZATION NEEDED

A third proposal would permit the creation of a construction reserve whereby railroads could obtain tax deferral on funds set aside and spent only for capital improvements within a five-year period. Such a fund would tend to stabilize year-to-year investment and level out the present peaks and valleys in railroad capital outlays. This increased stability in railroad capital spending would go far toward ending the feast-and-famine sales experience of the huge railway supply industry and redound to the benefit of the entire economy.

None of the foregoing constitutes tax forgiveness; each simply provides for tax deferral.

In 1955, the last year railroads were able to qualify for amortization of defense-supporting investments over a five-year period, orders were placed for 157,407 new freight cars. This shows what results can be obtained by effective tax stimulation of investment.

Means whereby internal costs can be reduced is the other side of the plant improvement picture. Net income, which provides a large part of investment capital and conditions a company's ability to attract outside capital, depends on operating expenses as much as on revenues. Every item of waste that can be eliminated from operating costs will therefore improve the railroads' ability to invest.

This compels action on featherbedding. Unnecessary employment costs resulting from antiquated work rules add up to more than \$500 million annually. This waste, which adds about 10% to railroad payrolls, inexorably takes its toll in inflated prices, a weakened competitive position and reduced job opportunities in the industry. It is also a heavy factor in making railroading a low-profit business, in freez-

ing out new equity capital and in curtailing outlays for new plant and equipment.

Railroad employees, I am convinced, have a special stake in measures aimed at increasing investment in new facilities. This is true despite the chronic fear of automation and mechanization expressed by some labor spokesmen. Improvements in ways of doing things, although sometimes causing temporary dislocations of worker groups, do not diminish over-all demand for labor. Historically, in fact, the opposite has been the case.

In attempting to achieve every possible economy that can be yielded by modernization, railroads have no choice but to eliminate every kind of cost-bloating work rule that stands in the way. To do anything less can only accelerate their downward trend. Not only outmoded work rules but many other traditional practices must go by the board in the process.

#### ELIMINATE GOVERNMENT HAND-OUTS

Perhaps it is too much to hope for, that government giveaway programs in transportation may also soon go by the board.

It is largely through government subsidy and promotion that high-cost forms of transportation have been able to compete successfully with the low-cost railroads in areas where railroads possess inherent advantages. Not only does government help provide air, water and highway facilities but in paying out vast subsidies for these purposes it has depressed rate levels in all of transportation. Thus, the railroads, whose rates must cover all costs of doing business as well as heavy taxes for the support of general government functions, are placed at a crippling disadvantage—both in pricing to meet competition and in pricing to create profits.

Because of such subsidies, the nation is building up the most costly, wasteful and inefficient transportation facilities at the expense of the most economical, all-purpose carrier—the railroads. If for no other reason, this trend should be halted because of its adverse effect on the nation's defense posture. Weakened railroads mean a weakened nation.

The present jumble of government policies has hardly been disturbed by the Transportation Act of 1958, passed

by the last Congress. This, in reality, barely scratched the surface of inequities in transport policy. The underlying mass of the iceberg remains untouched.

Ultimately railroads *must* be allowed to exploit their inherent advantages of low cost for volume hauling to the same extent that other carriers are allowed to make use of their advantages of speed or flexibility. The Transportation Act of 1958 gave the railroads increased freedom to change rates. But the amount of freedom is much in doubt.

#### RAILS TO 'MAKE' COMPETITION

Section 15a (3) of the Interstate Commerce Act, as amended, is intended to free regulated carriers, in pricing their services, from having to hold rates "up to a particular level to protect the traffic of any other mode of transportation"—to quote from the Act. This freedom was qualified, however, by a clause which directs the Interstate Commerce Commission to give "due consideration" to the objectives of the national transportation policy, one of which prohibits "unfair or destructive competitive practices."

The railroads intend to *make* competition rather than merely meet it in this struggle for their lives. And they intend to win this fight.

To sum up, there are challenges facing the railroads today of awesome proportions. New cost-saving machines and methods must be developed and put into effect to win increased patronage of shippers and travelers. Funds to do this must be raised through cost cuts and changes in tax policies that will stimulate high levels of investment in facilities yielding lower costs and better service. Government policies must be changed in the direction of equality of treatment so that railroads may have greater opportunity to compete for business.

With the oncoming changes of their own making, and with the help of the public in changing adverse government policies, the railroads' ability to carry the nation through any emergency will be preserved. And the dynamism of modern railroads will be felt in terms of better transportation service, progress and prosperity throughout America.

(EDITOR'S NOTE: For additional information on Railroad "featherbedding," see *The Analysts Journal*, February 1959, and *Fortune*, April 1959.)

#### Dividend No. 59

Interlake Iron Corporation has declared a dividend of 35 cents per share on its common stock payable March 31, 1959, to stockholders of record at the close of business March 16, 1959.



*J.P. Hagen*  
Vice President & Treas.

**Interlake Iron**

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PERRY S. WOODBURY  
Secretary and Treasurer

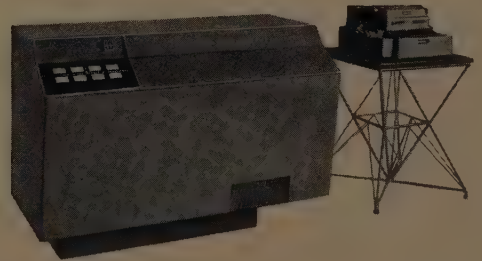
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# Transportation Equipment Equity

by L. K. Sillcox

AT NO TIME IN HISTORY has the railway rate structure been subjected to so much stress, which has caused for-hire common carriers to come forward with a vast array of novel proposals with the aim of injecting new life into carriers of an earlier period.

On the whole, they comprise major competitive efforts on the part of the railways themselves to now put a stop to further diversion of business and to regain a major portion of the traffic already lost. Incentive rates have been tried in the past, litigated, and found to be entirely acceptable as a matter of law. They must, however, be distinguished from alternate minimum rates which establish a fixed charge per 100 pounds for a specified minimum weight per car, and provide a lower rate on the entire contents of the car for a higher minimum weight.

By contrast, under incentive rates the shipper pays an authorized fixed charge per 100 pounds for all tonnage up to a specified minimum, and for all weight above the specified minimum, the shipper receives a discount on each additional 100 pounds loaded into the car. Railway incentive rates contemplate the use of a single car, whereas highway-hauler incentive rates are authorized for minimum of 60,000 and 90,000 pounds where restricted to being loaded in two and three vehicles.

Incentive rates are an outstanding example of an old competitive method brought into modern use. Multiple-car or trainload rates also are not new. Until 1939, however, they were consistently frowned upon by the federal authorities as causing unjust discrimination in violation of Section 2 of the Interstate Commerce Act. Since that time the Commission has seen fit to approve such rates upon occasion, where special and unusual circumstances have warranted their approval. Their justification, in the face of Section 2 of the Act, resides not on competition but on a comprehensive record establishing that real economies will accrue to the carriers from their use in lieu of the higher-cost, single-carload rates.

## BOAT SERVICE SEEN FASTER

Seatrains operations are an example of indirect trainload rate application, since cars are held for a boatload movement equal to a full train. Service by boat is faster than by train and damage-free, since no intermediate terminal switching and delays obtain en route. Wherever it is practicable to hold and assemble loads to move nonstop between important centers of traffic, it should be practiced since it would be expected to conserve terminal-to-terminal time, save cost, and reduce lading damage by holding switching movements to a minimum. If need be, various railways

could well afford to pool their movements to accomplish this result and be in a position to quote better, faster service at competitive rates, with a large net profit to themselves.

For the past six years or more the railways have been conscious of the traffic and economic possibilities to be derived from the provision of truck-on-flatcar (piggyback) service. Several competing methods of accomplishing this result have evolved. For shippers this operation, which costs only 21c a mile to send a loaded 35-foot truck-trailer from Chicago to the West Coast via flatcar and 25c per mile from Chicago to the East Coast for the same service, is just about half the cost of sending it over the highway.

For railways, the advantage resides in a realistic means of recapturing needed valuable traffic lost to competitors and a larger net return on operations. Already 6,700 out of the railways' fleet of 56,000 flatcars carry truck-trailers or containers. By 1959, the total will reach 10,000. The figure is important when it is shown that a trailer-hauling flatcar may be expected to average 10 times the mileage it would in ordinary service, say 300 miles per day, brought about by the time saved in loading and unloading and by virtue of being assigned to scheduled trains. A whole train of this type can be loaded in 2½ hours (two or three men secure a single trailer to a flatcar in three minutes).

Most trailers now travel aboard standard general-purpose 40-foot flatcars. In order to improve the service and save operating and maintenance costs, special long cars carrying two trailers each are preferred and will be finally adopted as standard for such assignments to replace many of the third of the freight car fleet which are general-purpose freight cars, most of which are overaged. (Average age of flatcars on January 1, 1958 was 21.24 years) and long due for replacement. About 20,000 of these are normally replaced annually.

## RR SEEK TO RECAPTURE

The Class I intercity motor carrier services in 1956 represented a \$4 billion business, and handled 330 million tons of freight. These 2,293 regulated carriers owned 136,000 trucks or truck-trailers and 169,000 trailers. It has been assumed that the railways may be expected to recapture at least 1/4, and possibly 1/2, of the business by quoting proper rates, furnishing satisfactory equipment, giving suitable service, and adopting modern methods of performance. We then address ourselves to providing means of accommodating \$1 billion to \$2 billion in new railway traffic. To do this at the average rates mentioned contemplates the use of a minimum of 20,000 fully loaded, long flatcars or twice that number of short ones.

In practical terms, during the next decade, it could well mean an average annual investment ranging from \$30 million to \$60 million for flatcars alone. Since the trailers will not run fully loaded and must oftentimes return empty, it is well to consider a 50 per cent increment in equipment to

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*Lewis Ketchum Sillcox, honorary vice chairman of the board of The New York Air Brake Company, holds many academic degrees from universities here and abroad. Starting as a machinist apprentice with the New York Central, Mr. Sillcox worked his way to the executive level of several railroads.*



match the earning power here predicted, so that on a \$1 billion total revenue basis, the number of flatcars to be practically contemplated will need to be 30,000 with an investment of \$450 million, and on a \$2 billion total revenue outlook, it will reach a figure of 60,000 flatcars and \$900 million invested in railway cars alone.

#### FLEXIBLE SERVICE OFFERED

Such containerization development, trailer-on-flatcar service, is a vastly important adjunct of railway service, whereby highway vehicles are enabled to enjoy the economies of railway line-haul movements. Wherever railways have a cost advantage over highway service for the entire distance, such flexible, economically desirable service results in reduced transportation costs for carriers and shippers alike. Technological advances have made it possible for railways to offer a more flexible service at lower rates than ever previously contemplated.

Numerous railways have in effect rates and minimum charges applying on movement of loaded and empty return demountable motor truck bodies on flatcars operating between major traffic centers. The rates and charges are published as all-freight or all-commodity rates in order to meet highway-hauler competition—especially the contract and private nonregulated carrier—in both directions on both loaded and empty equipment. One of the main elements relied upon to show the compensatory character of rates, and therefore, that rates are above a reasonable cost minimum level, is cost data. There are many other considerations that enter into molding a reasonable rate structure. In so far as ordinary rate proposals are concerned, railways may prove justness and reasonableness by merely showing that rates as proposed do cover fully distributed costs or that they more than cover out-of-pocket costs and that their justification is clinched by the extrinsic factor of competition.

#### MORE TRAFFIC WANTED

During the past several years there has been growing sentiment in the United States toward rate experimentation in the direction of the agreed-charge concept. This sentiment has been created by railway pronouncements to the effect that if they are given more traffic they can reduce freight rates and by large shippers who view the agreed-charge device as a perfect weapon for drastically reducing their transportation costs by playing one carrier against another. I believe most lawyers would quarrel with the proposition that the legal question will not be a serious one.

It would appear at the start that agreed charges as they are functioning in Canada would conflict with the provisions of the Interstate Commerce Act which provides that all rates must be just and reasonable and which prohibits unjust discrimination and undue or unreasonable preference or advantage. The prohibition against charging less for a long haul than for a short haul also will raise serious questions in connection with agreed rates. The anti-trust laws may also operate against the widespread use of the agreed-charge device. But if the railways should agree to add the agreed-charge concept to their arsenal of weapons against their competitors, then we may expect legislative

activity from Congress to meet the problems as they develop.

Motor trucks began to operate about 1910 though they were scarcely more than converted passenger automobiles of their time. In the United States in 1930 of the total commercial intercity freight traffic about 74.3 per cent went by rail and 3.9 per cent by truck. In 1957 the percentages were 46.4 per cent and 19.3 per cent. Trucks have a great advantage over railways in being able to give complete or door-to-door service. Although railways, with their cartage arrangements and pick-up and delivery rates, tried for many years to equal truck performance, they always found themselves handicapped by the extra cost and lost time of transferring freight between trucks, railway warehouses, and freight cars at both origin and destination.

#### TYPES OF LOADINGS

For short distances, trucks avoid these expenses and lost time of handing and are, therefore, cheaper to operate. What is loaded on the truck at the plant of the shipper is unloaded from the same truck at the factory, store, or home of the consignee. But the small one-or two-ton truck suited for local delivery is ill-fitted for economical transport for longer distances. Conversely, the five or ten-ton heavy-duty truck, which can haul freight for long distances along truck highways at low cost per ton-mile, is not well adapted for delivering a hundred pounds or less to plant, store, or home. For this reason, trucking firms running between large commercial centers operate terminal warehouses and transfer freight from one type of vehicle to another.

Even so, their terminal operations are far less elaborate than those of railways. Trucks are faster than trains for short distances. They save the time taken to transfer goods across warehouse platforms and from one type of vehicle to another. Way-freights are delayed because they handle less-than-carload lots which must be unloaded or loaded by train crews at local stations. Shipments also must be put through large, time-consuming terminals. This accounts for still further delays and great expense. Way-freights, which waste valuable time on sidings, must give way to superior trains. Carload freight moving from one large terminal to another escapes the line-haul delays attendant on way-freight service. Of course, trucks may be delayed on congested city streets and highways and they are more likely than trains to be tied up by snow and ice, despite better snow clearance and the use of sand and calcium chloride. Transportation is going to be bought on the basis of the best service at the lowest price, and if it takes co-operate simplification, mergers and consolidation of agencies, they will simply have to come.

#### FUTURE MERCHANDISING

The use of containers for handling various cargoes is not new. There are many types and sizes, depending upon the particular usage, which have been developed in an attempt to reduce the cost of handling, save time, and cut down on the almost unbelievable expense of pilferage and damage. There are those who predict that much warehousing in the future will simply be done by the holding of shipments in containers, out in the open, until they are needed for use.

Some marketing experts think that our present huge super-markets will in the future be dwarfed by much larger ones, where the containers will simply be set up, the doors opened, and the buying public will select their goods—including refrigerated products—direct from the containers into which they were packed at the point of origin. That would make for a rapid turnover of products and eliminate a vast amount of present nonproductive labor and time.

A foretaste of the possibilities is the actual movement of fresh meat, in refrigerated containers, from points in the interior United States to points in interior Africa—with the meat never being touched from the time it leaves the packing plant until the time it reaches the ultimate marketing point—where it arrives in perfect condition. Carriers will have to establish standard container dimensions for uniformity's sake. Usage alone will determine the size. The 8-foot width is limited by law as the maximum width on the highway. The height dimension depends on the carrying unit. The sum of the carrying unit height plus container height is limited by law for trucks and by railway bridge and terminal clearances.

The most economical unit of transportation for a railway is a fully loaded car and for a highway carrier a fully loaded truck. What is a full load for a truck is less-than-carload lot for a railway. A trucker often has lower costs than a railway on moderately sized shipments but has relatively higher expenses on larger carload lots. Although highway haulers have lower terminal costs than railways, they have higher line-haul expenses per ton-mile. A truck with a pay-load of 10 tons, more or less, requires a single employee.

A train with 2,000 tons pay-load has a crew of not over five men. Even after allowing for differences in wage rates on the two agencies and for varying proportions of men employed in maintaining roadway and equipment, trucks are at a disadvantage in line-haul costs per ton-mile. Due chiefly to the massive size of transportation unit, line-haul costs by railway are low for all movements by railway, while for all movements by rail, terminal expenses and time lost are extremely high. As terminal charges are fairly constant for all distances, terminal cost per ton-mile declines as length of haul increases and is the lowest for unbroken trainload lots from origin to destination. The combined terminal and line-haul costs on a ton-mile basis are lower for highway carriers than for rail up to the point where the cheaper terminal expenses of trucks spread over ton-miles are more than offset by the more favorable line-haul costs of rail carriers. Thus any comparison of truck and rail costs must recognize the great importance of the length of haul.

An important study of the subject showed that trucks were superior to railways for a distance up to 400 miles. Truck costs were lower even if they included a return on investment and railway costs excluded such return. For truckload and carload traffic, trucks had an advantage below 30 miles and their costs were about the same as rail costs up to 50 or 60 miles. For all distances above 100 miles truckload costs were materially higher than railway carload costs. (Board of Investigation & Research, Comparison of Rail, Motor, and Water Carrier Costs, 79th Congress, 1st Session, Senate Document No. 84, 1945).

Railways must raise large amounts of capital to modernize their physical plant, and they face an uncertain future. Theoretically, they can secure funds by any or all of the following means:

1. Investing depreciation reserves,
2. Retaining and reinvesting profits,
3. Selling new securities to the general public, and
4. Obtaining federal loans.

Under conventional accounting methods, depreciation is based on the original cost of the asset. On account of the relatively recent rapid rise in labor and material prices, depreciation reserves are entirely insufficient even to replace the asset against which the reserve was originally set up. To be sure, the new asset bought by investing depreciation moneys may have a lower cost of operation and maintenance or greater productivity than the original asset. Yet after giving due allowance to this factor, depreciation reserves are insufficient to replace assets being worn out or made obsolete. This situation, which is common to other lines of business, will continue to be a problem so long as prices remain abnormally high.

Placing back earnings might be the most satisfactory source of capital funds were it not for three facts. First, railway net earnings are not likely to be large enough to give the railways all the capital they require from this source. Secondly, investors are normally unwilling to buy new stock unless they are receiving cash dividends on the stocks they already hold. Finally, paying corporation income on profits before reinvesting them in the business is an expensive means of raising money. Even so, reinvestment has the advantage that the industry incurs no contractual obligation to pay interest annually or repay principal at some future time.

#### BONDS AND STOCKS

A railway may sell various kinds of bonds and stocks. Bonds, if well secured, are easier and cheaper to sell than stock and over the years interest payments will be less than dividends. On the other hand, they must be paid at maturity and the interest on them must be paid on its due date; otherwise, the company is bankrupt technically and usually practically as well. As a result, companies try to avoid issuing bonds to a larger total nominal amount than they can sustain in the poorest business year which they are in a position to anticipate.

In other words, the maximum annual net operating earnings after wages, raw materials, depreciation, property taxes, etc., combined with the rate of interest, set the maximum or outside limit to the amount which a corporation can safely borrow. In view of the steady decline in their net operating revenue and in particular of the variability in their net revenues due to the business cycle, railway managements are convinced that they should not increase their debt beyond its present ratio to total investment. Equipment trust notes appear to be a particularly attractive type of borrowing instrument. The equipment pledged to secure the notes has an actual average service life approximately twice as long as the notes themselves.

Expressed in different terms, the notes are paid off



faster than the equipment is depreciated in value. Consequently, it can at any time be sold for an amount large enough to satisfy the notes and pay the costs of seizure. The equipment is reasonably well standardized and, consequently, may find more prospective purchasers among other railways. Moreover, it must be kept in good repair, otherwise it is of no use to the leasing railway and will not be accepted in interchange by connecting lines. For these reasons, equipment trust notes are sold at interest rates of 4% to slightly over 5% per annum. Since the notes must be repaid within 10 to 20 years, they become in reality a revolving fund. Equity financing is strongly favored by railway managements wherever earnings will support such financing.

What is more, the relationship between rates on railways and highways varies with the business cycle. In general, railway rates are rigid, whereas highway rates are more fluid, especially when business is poor. Costs of operating the two agencies may not change simultaneously or to the same degree. Hence, rates may temporarily get out of line one with the other. Thus, it is hard to generalize on the comparative levels of railway and highway rates.

#### METHODS OF OPERATION

Co-ordination, harmonization, or integration could be provided in a number of ways. Transportation companies could own and operate various media and integrate their

services in such a manner that shippers would receive the best service at the lowest possible cost. Presumably, the corporation would be a railway; because it possesses the plant, trained personnel, and the financial resources to bring about the needed integration. After a shipper had called up a railway office (or, more accurately, the transportation company's office) and stated what goods he wanted to have moved, what quantity, and to what destination, the transportation company would allocate the same to the most economical means of movement—by rail, truck, water, or air.

Possibly a very large part of the freight could be loaded in a truck (or container) and driven to the railway receiving point. The body of the truck (or container) would be placed onto a freight car, hauled by train to a distant point, moved back into a truck, and then taken to final destination. Some co-ordination could be achieved by letting the ownership and operation of the various agencies remain as at present but encouraging close and just working arrangements, such as joint arrangements between the different kinds of carriers regarding through routes, joint rates, the proper flow of all traffic so affected, interlocking of times of arrival and departure, abandonments of unprofitable branch railway lines and their replacement by independently owned truck services, joint use of terminals, and so on. The main difficulty is that neither railways nor trucks nor waterways are prepared to give up their separate ambitions.



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#### Preferred Dividend

A quarterly dividend of \$1.19 per share has been declared payable on the first day of May 1959 to holders of record at the close of business on April 10, 1959 of the Company's Cumulative Preferred Stock, 4.78% Series.

#### Common Dividend No. 280

A quarterly dividend of 70 cents per share on the Common Stock of the Company has been declared, payable on the first day of May 1959 to stockholders of record at the close of business on April 10, 1959.

Checks will be mailed from Old Colony Trust Company, Boston.

**ALBERT C. McMENIMEN**  
Treasurer

Boston, March 17, 1959

Each agency feels that it should be free to retain all the traffic it now has and reach out for more. Each feels that if it gives up traffic—even traffic which it itself may find unprofitable—the other agency will strengthen its position and strike out for more business in some other direction.

#### AGENCY SUSPICIONS CITED

Co-ordination along this line is beset by suspicions between the competing agencies. Under the proposal for integration some authority would have to decide where and under what conditions the various agencies should compete and, more particularly, where they should not compete. Co-ordination will remain difficult because of: (1) the activity of the private and exempt carriers; (2) the fundamental economic problem of deciding within what precise range each agency ought to operate and the rates it should charge, inasmuch as each operates under conditions of joint cost; and (3) the apparent denial of the right of the shipper to dictate whatever mode of transportation or route he prefers.

In a broad sense, the difficulty of carrying out any programs of integration is to discover how far freedom of choice by shippers, consignees, and carriers should be limited in the public interest. Integration in itself will not solve the "railway problem." If properly carried out, integration would not and should not insulate railways from realistic competitive pressures. Its main advantage is that it is the only reasonable means of slowing down the process of attrition by which railways now lose so much traffic and it would provide the public with better service. Stability will eventually be achieved.

#### TRANSPORTATION REVOLUTION

Transportation is going slowly through a technological and economic revolution associated with the internal combustion engine, just as it experienced vast changes following the introduction of steam power. Over the years highway transport will find its true place in the over-all picture. Railways, which once had a practical monopoly of inland transport, now realize that they will have to lend themselves to a sweeping degree of readjustment in practice, and this is going on at an accelerated rate which will be most intensive during the next decade.

In a time of rapid technological change and spiralling inflation quick amortization of investment to avoid obsolescence is monumentally important. Since the airlines and motor carriers enjoy a depreciation life of five to eight years, against 30 to 40 years for railways, it is significant that railways cannot care for replacement and modernization of their equipment without constantly increasing their capital outlays. Congress should act upon the proposal of permitting railways a shorter, more realistic period of depreciation for their plant and equipment. This would allow the accumulation of funds with which to take advantage of

modern improvements when they are new and needed, instead of waiting until the old equipment is worn out.

#### RETREATING UNDER PRESSURE

Even though railways are advancing brilliantly in some directions along the widest reaches of their competitive battlefield, they are retreating slowly in others under heavy pressure. They are retreating both in relative terms in the face of their major competitors and the growth of the economy as a whole, and in absolute terms that measure their capacity to handle volume traffic, meet national defense needs, and in their dynamic ability to stand up against a crisis. For example, the railways have virtually completed their Dieselization program and are installing some of the most effective equipment science can devise. Yet AAR figures show that serviceable freight cars totaled 1,663,000 in October 1958, which is a figure lower by 4,600 than a year ago. But the bad order backlog is up 59,400, so that the serviceable freight car fleet is about 64,000 cars short of one year ago.

Currently the railways are endeavoring in whole or in part to improve their way of life along the following lines:

1. Ending, by every means possible, the crushing passenger and commuter deficits that have imposed so heavy a burden on over-all earnings and, consequently, in the accumulation of capital. This problem is especially acute in the East, and it is here that some of the most drastic solutions have been resorted to.

2. Recapturing the less-than-carload high-paying freight lost to the motor carriers by resorting to "piggyback" movements of highway trailers on flatcars, with special inducements to forwarders and private shippers supplying their own equipment.

3. Getting a firm grip on large bulk shipments by negotiating special rates, integrating services and planning for "agreed charges" in the case of shippers who are willing to consign certain quantities of their annual tonnage exclusively to the railways. There are many reasons for these moves, but one of the most pressing is the imminent competition at the center of our nation of ocean shipping lines using the enlarged St. Lawrence Seaway.

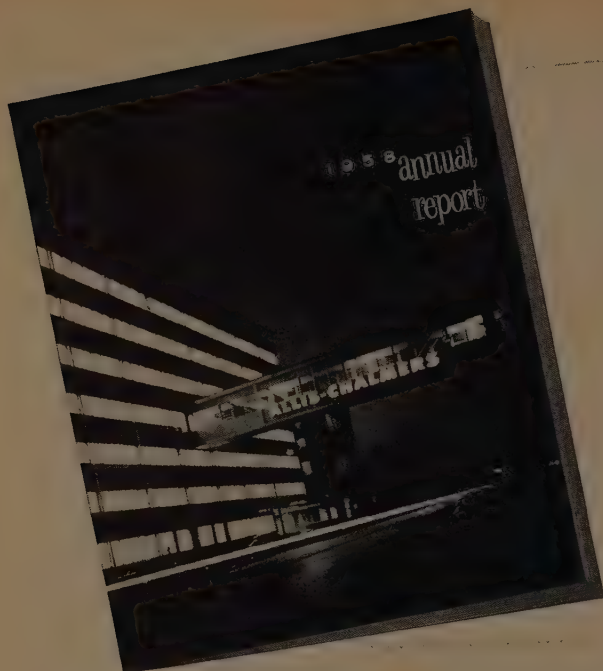
4. Provision of a national car pool, probably financed and managed by the federal government but paid for by the railways through leasing arrangements, to insure an adequate supply of satisfactory modern equipment for emergencies. Not all railway managements are agreed on the need for this but the project will take a serious turn unless the railways agree among themselves on a satisfactory voluntary program.

5. Straightening out the federal, state, and local tax complex in which railways charge that they are discriminated against to their great disadvantage and to the consequent advantage of their competitors.

\* \* \*

"The iron and steel business has been exceptionally fortunate in its supply of industrial talent; a number of the greatest captains of American industry have been engaged in this field."—Isaac Lippincott.





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The story of Allis-Chalmers essentially is the story of POWER . . . the creation of Power, the application of Power, the never-ending search by the Company for ways to improve its own powers of production and thereby better its product lines.

In terms of this pattern, the Allis-Chalmers Annual Report, now being mailed to 59,149 share owners, presents a broad outline of accomplishments of the Company in 1958.



## HIGHLIGHTS

1958

1957

Sales and Other Income	\$535,165,825	\$537,191,443
All Taxes	33,189,603	28,489,381
Earnings	19,657,958	17,819,251
Earnings per Share of Common Stock	2.34	2.11
Dividends Paid per Share of Common Stock	1.25	2.00
Shares Outstanding		
Preferred stock	103,635	103,635
Common stock	8,216,016	8,214,281
Dividends Paid		
Preferred stock	422,831	465,598
Common stock	10,270,016	16,374,763
Share Owners' Investment in the Business		
Preferred stock	10,363,500	10,363,500
Common stock	162,088,166	162,055,251
Earnings retained	135,354,664	125,108,613
Total share owners' investment	307,806,330	297,527,364
Book Value per Share of Common Stock	36.20	34.96
Working Capital	263,557,034	257,661,251
Ratio of Current Assets to Current Liabilities	4.82 to 1	4.07 to 1
Number of Share Owners		
Preferred stock	802	655
Common stock	58,347	56,071
Employees		
Number of employees	32,364	35,799
Payrolls	172,093,408	187,590,363

ALLIS-CHALMERS serves our nation and the growing world through the many domestic plants and offices shown here—and through the world wide facilities of Allis-Chalmers International.



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**ALLIS-CHALMERS POWER FOR A GROWING WORLD**

# The Writing of Options

## .... PUTS and CALLS

by George Vaux Cresson

BEING AN INVESTMENT MANAGER, I am writing this article as a professional to professionals; but also as one who is interested in options, I am writing as an amateur to amateurs. In the latter, more restricted, sense there is nothing new for the "option professional". The purpose here is to call attention to what seems to be a relatively neglected field of financial endeavor.

Suppose we are managing a fair sized fund and some cash has become available for investment in common stocks. We wish to add 100 shares to an item already held, but the stock is selling at an all-time high, both absolutely and price/earnings-wise. We are understandably hesitant about jumping in at this point. However, the favorable outlook convinces us that the commitment is justified and we talk with our broker. He comes up with a rather strange proposal: how would you like to buy it 5 or 6% below the present market?

That would be fine, but an open order 5% below the market might or might not be executed. The broker does not have an open order in mind. His proposal is that the stock be bought 5% below the market within 90 days, and failing such execution we are to be paid interest on the money set aside for the purpose at the rate of 20% per annum! At first blush this sounds too good to be true and we wonder what the broker is up to. The answer is *writing option*, or, in this case, more specifically, a PUT.

Now is the time to be sure we are all talking about the same thing by introducing definitions of the main kinds of options.

A CALL is a contract given for an agreed premium entitling the holder thereof, at his election, to buy on or before a fixed date, a specific number of shares at a predetermined price.

By paying a premium for a PUT one acquires the right to sell a certain number of shares of stock to the writer of the PUT at a fixed price, on or before a fixed date.

These simple definitions will suffice for our purposes. The more complex option forms can be left for consideration by the specialist in these matters. This article is concerned with the *writing* or *selling* of options (PUTS and CALLS). The motives of the *buyers* are of interest only as they throw light on how the privileges will be exercised or allowed to lapse under various conditions.

In the business world, options are used every day in one form or another. John Houghton in 1694 described how

PUTS and CALLS were used in connection with security dealings in London. Today there is no important financial center where PUTS and CALLS are unknown and where they are not regarded as an important adjunct to security dealings. In spite of this venerable background I find that the whole subject is quite obscure with a great many otherwise well-informed investors.

We have all observed the advertisements for PUTS and CALLS in the Sunday New York Times and the Wall Street Journal. Where do all these options come from? Are they originated by the dealers? By no means! The dealer is only just that. The options are written (or sold, if you will) by some of the largest most conservative and knowledgeable institutional investors in the country to enhance income and as an aid to sound investment management. The great majority of option writers either own stock and wish to sell it at a price higher than the current market or wish to acquire stock below the current market. These sellers of options have learned by experience that whenever the market moves contrary to their expectations they have received extra income in the form of premium money that could not otherwise have been earned.

It may come as a surprise to some investors to learn that any New York Stock Exchange member firm is equipped to handle this type of business through option dealers. The authors of the Security Acts of the early 30's were all set to eliminate the business entirely, largely because of ignorance of its nature and function in the financial community. A concerted stand on the part of the option dealers put a stop to this projected arbitrary move.

To return to the original theme, our broker calls several option dealers and finds that the best bid for 90-day PUTS on 100 XYZ common at the current market of \$100 a share is \$525, known as the premium. This is acceptable and the broker proceeds to guarantee the contract with the dealer crediting the premium to our account. The contract allows the purchaser of the PUT to sell the writer 100 XYZ at \$100 a share within 90 days. If the option is exercised we obtain the stock for the option price, less the premium, or at 94¾. If it expires, we keep the premium, which in this case amounts to 5¼% of the money for investment, or at an annual rate of 21%.

### WHEN THE STOCK GOES 'EX'

It is evident that through the writing of options it is possible to achieve purchases and sales of stock at price limits that are not attained by actual market fluctuations.

The option price is reduced by the amount of the dividend when the stock goes ex. If exercised, both buyer and seller pay the regular brokerage commissions they would have paid if the transaction had taken place without the

*George Vaux Cresson is the investment analyst for the Princeton Bank and Trust Co., Princeton, N. J. Prior to this he held similar positions with the Chemical Corn Exchange Bank and the Donner Corp. of Philadelphia. He holds an EE degree from the University of Pennsylvania.*



option. If the stock pays a dollar per share quarterly, and the commission is a dollar per share, it will not pay the buyer to exercise unless the price at the end of 90 days is under 98.

After the term of the option has elapsed the fund now either owns 100 additional shares of the desired stock at a price  $5\frac{1}{4}\%$  below the then prevailing market, or has received 21% return on the money held ready for the purchase. If the PUT was not exercised we are in a position to repeat the whole procedure on the same stock as long as the price at the time is such that we would be willing to buy about 5% below the prevailing market. If the stock has moved up too much, or for some other reason the foregoing condition does not obtain, we look around for some other stock and repeat the original procedure. The stock does not necessarily have to be one already held in the portfolio; we may wish to employ this method gradually to accumulate an equity not already held on a sort of "dollar averaging" basis.

Let us return to the original stock under discussion and consider the possibility that after the first 90 days have elapsed and the PUT has expired unexercised, the price has soared to a point where we would be inclined to dispose of a small amount, say 100 shares out of 900 held, especially if we could get 5% above the market then prevailing. The procedure then is to write a 90-day CALL on 100 shares XYZ at the market, which we shall assume has now risen to 120, for which we receive a premium of \$650. If this option is exercised the premium may be added to the selling price of the stock, yielding a price of \$126.50. If it expires, the \$650 is credited to income.

#### FORECASTING AN IMPOSSIBILITY

It is naturally impossible to know ahead of time whether an option is going to be exercised before it expires. In the first place, it is unwise for the purchaser to exercise options before their due date. In the second place, the way the buyer handles his trades, against the option, is an important determinant. Certain it is, that if the option ends up a significant distance away (down for a PUT or up for a CALL) from the option price, it will be exercised. However, if the distance away is not significant or if the stock price moves against the holder (down for a CALL or up for a PUT) the option may be allowed to lapse. This could come about by a failure of the holder to take appropriate market action against the option, either because of lack of opportunity or lack of sufficient trading agility. In the example of the PUT that we first considered, the option price would drop about a point during the life of the option when the stock went ex dividend, and in addition the holder would have to figure on two commissions and a tax in order to make it worthwhile to exercise.

The accompanying table shows what an investor, writing options against an initial holding of 1000 shares of National Cash Register common stock in December 1947, might have done since then. We shall assume that a normal representation in this stock will vary from a minimum of approximately 1000 shares to a possible maximum of 2000 shares, depending on conditions. The figures in the table are fair approximations, having been adjusted for such

capital changes as stock dividends and splits. As market history never repeats *in detail* this should serve for illustrative purposes. It is evident that cash dividends totalled \$15,552 during the period covered while receipts from unexercised options added another \$4,390 to income, making a total of \$19,942. Hence the dollar income from the entire holding was increased 28.2% by option writing. Since the average income based on the average price of the stock over these years has been only 3.7%, the supplemental income from option writing would have boosted the return to 4.8%.

The 300 shares sold as a result of CALL came from the 300 higher cost shares acquired by PUT, and show a realized long term capital gain of \$6,870. The 500 shares acquired earlier by PUT, at a total cost of \$4,625, show a unit cost of  $9\frac{1}{4}$ . If we assume that the initial 1000 shares cost 10, the current modest 30c quarterly dividend is giving a return of 12.3% on the average cost of  $9\frac{3}{4}$  for the 1500 shares now held.

#### ENTERING A 'CLOSED FIELD'

I have deliberately chosen a growth stock because most income funds do not consider that they can afford this type of vehicle with its characteristically low return. However, with the supplemental income from option writing open to the investment management, it can enter an otherwise closed field—one which may ultimately increase both income and principal. That is why I make the observation that option writing may improve the results of all three objectives: income return; growth potential; and safety of principal.

Why safety of principal too?

On the basis of Napoleon's dictum that the best defense is an attack, successful achievement of growth should also result in greater safety of principal.

Wherever purchase or sale of listed common stocks is indicated, option writing may be desirable. Here are some conditions where writing of options may be indicated:

1. The gradual accumulation of a stock.
2. The gradual liquidation of a stock.
3. The addition of a relatively small increment to the present holding, possibly for the investment of incoming cash below the current market price.
4. The liquidation of a relatively small part of the present holding, possibly to supply cash for withdrawal of funds above the current market price.
5. The expansion of income for the fund.

As we have seen from the National Cash example, an unexpired option can be a welcome addition to income without any purchase or sale of the stock. Such purchase or sale may not be particularly desired but, as long as it can be supported by the fund, the writing of an option may be indicated. If definitely no purchase or sale were wanted, then that stock would be strictly out as far as option writing is concerned. On the other hand, if conditions were such that a purchase or sale were close to mandatory, then such transactions should be done at the market, with no consideration given to option writing in that instance. It is the

# HYPOTHETICAL EXAMPLE OF OPTION WRITING IN 100 SHARE PUTS AND CALLS ON NATIONAL CASH REGISTER COMMON AT QUARTERLY INTERVALS

(Mid - M J S D intervals, P-put, C-call)

Quarter starting	Price	Option Income	Prin.	Shs. held at start of qtr.	Cost	Proceeds	Dividend on amt. held
12/47	9 3/4		\$ 50P	1000	\$ 925		\$150
3/48	9	\$ 50P		1100			165
6/48	11		50P	1100	1050		165
9/48	10 1/2		50P	1200	1000		180
12/48	9		50P	1300	850		208
3/49	8 1/2		50P	1400	800		224
6/49	7 1/2	50P		1500			240
9/49	7 1/2	50P		1500			255
12/49	9 1/4	50P		1500			255
3/50	9 3/4	50P		1500			270
6/50	9 1/2	50P		1500			270
9/50	10	50P		1500			270
12/50	11 1/2	50P		1500			270
3/51	15	75P		1500			330
6/51	16	80P		1500			330
9/51	17	85P		1500			330
12/51	16 1/2	85P		1500			330
3/52	17	85P		1500			330
6/52	17	85P		1500			330
9/52	17	85P		1500			330
12/52	16 1/2	85P		1500			330
3/53	16 1/2	85P		1500			330
6/53	16 1/2	85P		1500			330
9/53	16 1/2	85P		1500			330
12/53	18	90P		1500			330
3/54	23	120P		1500			330
6/54	25	130P		1500			345
9/54	28	140P		1500			360
12/54	32	160P		1500			375
3/55	43		200P	1500	4100		390
6/55	40		200P	1600	3800		416
9/55	37		200P	1700	3500		442
12/55	36	200P		1800			468
3/56	40	200P		1800			486
6/56	49	250P		1800			486
9/56	49	250P		1800			486
12/56	51	250P		1800			486
3/57	52	250P		1800			540
6/57	70	350C		1800			540
9/57	59	300C		1800			540
12/57	54		270C	1800	3500	\$5670	540
3/58	59		300C	1700	3800	6200	510
6/58	61		300C	1600	4100	6400	480
9/58	75	370C		1500			450

in-between case where purchase or sale is permissible that offers opportunity for option writing. Such opportunities may be quite numerous in the day to day operation of a large fund and may be worth consideration even in a medium-sized one.

A variety of applications will occur to the thoughtful investment manager to meet individual investment needs as they arise. For instance, industry group switches can be effected advantageously by judicious option writing. If a policy of lightening rail holdings, and increasing representation in industrials, were considered desirable, writing of CALLS on selected rail stocks in the portfolio, and PUTS on industrials, would be indicated. If the reverse switch were desired, then writing of PUTS on rails and CALLS on industrials would be in order. The exercise of many PUTS

and CALLS will tend to balance each other so that the necessity for carrying a large cash equivalent reserve will be held down to a minimum.

## POTENTIAL OF OPTION WRITING

Again, going back to the original example, in the unlikely event that anyone should think that in making 20% on his money safely he has found "the pot of gold at the end of the rainbow", let me disabuse his mind of such a notion. Several considerations are in order.

The 5% rate for 90 days is probably conservative, but this obtains as income only when the option remains unexercised and must of necessity apply only to a small proportion of the total capital. As we have seen in the National Cash example, the operation resulted in adding about one



percentage point to the dividend return on the entire amount held. For discussion purposes, we assumed continuous 100 share option writing on an original holding of 1000 shares. Actually, we might not always want to have an option outstanding against that particular stock. Perhaps some stocks are held in just the right amount, or for some other reasons such as lack of listing they are ineligible for option writing. Finally, if the fund is a balanced one, part of the fund is invested in fixed income securities that could not be used for option writing.

Suppose only three quarters of the common stocks in the fund were eligible for option writing at any one time, that these were used only three-fifths of the time, and that only three-fifths of the fund is invested in common stocks. This shrinks our one percentage point income advantage achieved in the National Cash example to a mere one quarter of one percent when applied to the entire fund. In other words, if the fund is earning a normal  $3\frac{3}{4}\%$  overall, the practice of option writing under these circumstances could be expected to improve the return to something on the order of 4%.

#### CASH EQUIVALENT RESERVE REQUIRED

It is evident that the writer of a PUT must have the wherewithal to exercise it if necessary. In the case of a CALL, he already has it in the form of the security held. In the original example cited, the money had already come into the fund and could be immediately invested in 90-day U. S. Treasury discount bills, pending the outcome of whether the PUT would be exercised or lapse at the end of the 90-day period.

In the National Cash example, the situation was somewhat different in that no money was specifically earmarked for the purpose. If option writing throughout the fund worked out in such a way that PUTS and CALLS exercised, exactly balanced, no reserve funds would be called upon; the proceeds from the CALLS exercised would pay for the requirements of the PUTS. If CALLS exercised were in excess of PUTS cash would flow into the reserve and if PUTS

were exercised on balance, cash would be withdrawn to the extent of the excess.

#### CERTAIN CONDITIONS CITED

In the National Cash example we wrote only 100 shares of options against 2000 shares held. Later we assumed that only three-quarters of the common stocks in the fund were eligible for option writing; that these were used only three-fifths of the time; and that only three-fifths of the fund was invested in common stocks. Disregarding the possibility of any CALLS being exercised to augment the cash reserve, and assuming three-fifths of the options written to be PUTS, the conditions outlined would call for  $1\frac{3}{8}\%$  of the fund to be in cash equivalent reserve to fully protect against the possibility of complete exercise of all PUTS outstanding at any one time. As some PUTS undoubtedly lapse and some CALLS would be exercised, a cash equivalent reserve of something on the order of 1% of the entire fund would appear to be ample to take care of the contingent liability of outstanding PUTS being exercised. As the exercise of PUTS results in the purchase of additional shares, most funds, where money is flowing in on net balance, have an adequate reserve for this purpose.

Option writing is no road to riches; its gains are modest, but significant. Here lies its advantage: The investment manager does not have to make a momentous decision of basic policy to espouse the technique; that is, he does not have to dive in whole hog. Perhaps the best way to get his feet wet would be to go ahead and write an option and see how it works. If the results are satisfactory, try another.

Is option writing worth while?

If the main objective is income consistent with safety, and some growth, the presumption is that the investment manager has been exerting every effort to obtain the present return, which has been assumed to be  $3\frac{3}{4}\%$ . If this could be improved to 4% without incurring additional risk, the answer would appear to be "Yes."

The purpose of this article is merely to prompt the investment manager to ask the question.



### BALTIMORE GAS AND ELECTRIC COMPANY

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#### QUARTERLY DIVIDENDS

Dividends of \$1.12½ a share on the 4½% Preferred Stock, Series B; \$1.00 a share on the 4% Preferred Stock, Series C; and 45 cents a share on the Common Stock, have been declared for the quarter ending March 31, 1959, all payable April 1, 1959, to holders of record at the close of business on March 13, 1959.

J. THEODORE WOLFE, President

*Dividends paid on the Common Stock continuously since 1910—always earned—never reduced.*



#### COMMON DIVIDEND No. 104

The Board of Directors today declared the following dividend:

60 cents per share on the Common Stock, payable June 15, 1959 to stockholders of record at the close of business May 15, 1959.

The Goodyear Tire & Rubber Co.  
By Arden E. Firestone,  
Secretary

April 6, 1959

THE GREATEST NAME IN RUBBER

### CONSOLIDATED NATURAL GAS COMPANY

30 Rockefeller Plaza  
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#### DIVIDEND No. 45

THE BOARD OF DIRECTORS has this day declared a regular quarterly dividend of Fifty-Two and One-Half Cents (52½¢) per share on the capital stock of the Company, payable May 15, 1959 to stockholders of record at the close of business April 15, 1959.

JOHN MILLER, Secretary  
March 18, 1959



Finished  
transistor,  
actual size

26,000 TI transistors will be produced from the thin slices of semiconductor crystal seen in the container above being inserted in a diffusion furnace.

Here, precisely separated on a single slice of germanium crystal magnified 33 times, you see 40 of the more than a thousand transistor hearts produced per slice. Every one of these transistor hearts has had its base layer diffused in and the  $0.002'' \times 0.006''$  aluminum emitter and gold base-contact stripes applied by high vacuum evaporation.

## How transistors are born in Texas...26,000 at a time!

Dramatically advanced transistors are produced at Texas Instruments by diffusing materials directly into many slices of semiconductor material simultaneously. Identical transistors—each a solid mechanical unit—attain new pinnacles of uniformity and reliability. Starting with the introduction of the first commercially available diffused-base transistors—silicon type 2N389 in May, 1957, and germanium type 2N623 in March, 1958—TI now produces diffused-base transistors that operate at frequencies of hundreds of megacycles (beyond television frequencies), that handle greater amounts of power, and that withstand severe shock, acceleration and vibration.

Result: detection and guidance systems for military weapons become faster-acting and more reliable; control and telemetering systems for missiles and satellites become more sophisticated; larger-scale data processing systems now operate faster and need only a fraction of their former power consumption, cooling and area requirements.

For over a quarter century, such TI creative engineering has made outstanding contributions to new developments in seismic exploration, instrumentation, military and commercial electronic systems, transistORIZATION, and electronic components...contributions that improve your way of life personally, professionally, nationally.

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EXECUTIVE OFFICES: HOUSTON, TEXAS

# Oil Division... new source of strength for Texas Eastern

A new operating unit — Texas Eastern's Oil Division — has taken its place alongside our other two divisions which operate our pioneer natural gas transmission pipeline and our "Little Big Inch" petroleum products pipeline.

**The Oil Division** is a regrouping of company units (including La Gloria Oil and Gas Company) into a single division operating in four oil and gas industry fields . . . exploration, production, custom refining, gas processing.

**The exploration and production** section is busy exploring in nine states and is producing from some 800 operating wells.

**The La Gloria refinery** at Tyler, Texas, custom refines high octane auto and aviation gasolines—and a wide assortment of other products, including jet and diesel fuels, heating oils and petroleum coke. Already one of America's most modern refineries, Tyler is expanding for the future.

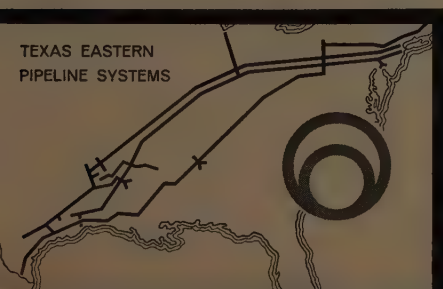
**The natural gas processing** plant at Falfurrias, Texas — one of the world's largest — processes some 325,000,000 cubic feet of gas daily — and, in the processing, recovers large quantities of valuable petroleum liquids, including natural gasoline, kerosene, butane and propane. A new gas-liquid separation plant will soon go into service in South Louisiana.

**Texas Eastern Oil Division** has grown, and will continue to grow lustily on a formula of planned expansion and diversification which has built Texas Eastern from an idea in 1947 to an \$800 million organization in 1959 — a busy, versatile worker in the service of the nation and all phases of America's petroleum industry.

**OIL AND GAS:** *Exploring and Producing*

**NATURAL GAS:** *Processing and Transporting*

**OIL PRODUCTS:** *Refining and Transporting*



# The Analysts' 1959 Convention

WITH A COMPLETE PROGRAM of industry forums, economic conferences, diversified field trips and speeches of interest, the Twelfth Annual Convention of The National Federation of Financial Analysts Societies may well draw a record-high attendance.

This is the hopeful opinion of A. Hamilton Bolton, convention chairman, and James E. Morgan, program chairman, as they reach the completion stage of planning.

While the official dates of the 1959 Analysts Convention are from June 15-18, in Montreal, a welcoming reception is scheduled for late Sunday afternoon, June 14, at which time 21 Canadian financial concerns will be hosts.

Forums, conferences, some of the luncheons, and the annual dinner will be held at the Hotel Queen Elizabeth.

Although complete details of the Convention are included only in the official convention program, a few of the high-lights are mentioned below.

Principal speakers include: Dr. David McCord Wright of McGill University, on "The Economic Outlook"; Hardwick Stires, Scudder, Stevens & Clark, on "Capital for Canada"; and Dr. Maxwell J. Dunbar of McGill University, on "Living in the Canadian North."

Industry forums and economic conferences will include the following: Pulp and Paper Industry; Oil and Gas Industry; The Future of Quebec; Banking in Canada; Aluminum Industry; Uranium and Atomic Energy; British Columbia Power Corp.; British American Oil, Ltd.; Trans-Canada Pipe Lines, Ltd.; International Paper Co.; Dominion Stores, Ltd.; Canadian Pacific Railway Co.; and Base Metals Industry.

All-day field trips include: Port of Montreal and Canadian Petrofina, Ltd.; Distillers Corp.; Seagrams Ltd., and Dominion Engineering Co.; St. Lawrence Seaway; Howard Smith Paper Mills, Ltd.; Ottawa: Houses of Parliament; Shawinigan Water & Power Co.; Canadair Ltd.; Noranda Mines, Ltd.; Molson's Brewery, Ltd.; and Labatt's Brewery, Ltd.

Trip chairmen are: Aubrey G. Hill; T. G. Sweeney; John Fairfax-Ross; W. L. Ridley; Miss Margaret E. Cameron (the ladies' program); Frank H. Logan, John R. Ferguson; William A. Buik; R. D. G. Lafferty; and H. de L. Harwood.

Other high-lights of the Canadian convention will be a buffet on board the Canadian Pacific steamship "Empress of Britain" and the post-convention Saguenay cruise. Tickets for the latter have been sold out since January. On the Saguenay cruise, visits have been arranged to properties of Aluminum, Ltd., and with La Chambre de Commerce du District du Lac St. Jean-Roberval and La Chambre de Commerce du District du Saguenay.

On Monday, June 15, a breakfast will be held for the Beloit Seminar Alumni. And at 10 a.m. the same day, Mr. Bolton, convention chairman, will deliver the welcoming address. L. Hartley Smith, president of the National Federation, will also speak briefly. G. T. Giguere, president of the Montreal Institute, is chairman.

Convention chairmen who have been instrumental in organizing the 1959 meeting, and their business connections, follow: General Chairman: A. Hamilton Bolton, Bolton, Tremblay & Co.; Deputy Chairman: Willard S. Bush, DuPont of Canada Ltd.; Program Chairman: James E. Morgan, The Royal Bank of Canada; Arrangements Chairman: Charles W. Taylor, Sun Life Assurance Co. of Canada; and Finance Chairman: William D. Small, Bank of Montreal.



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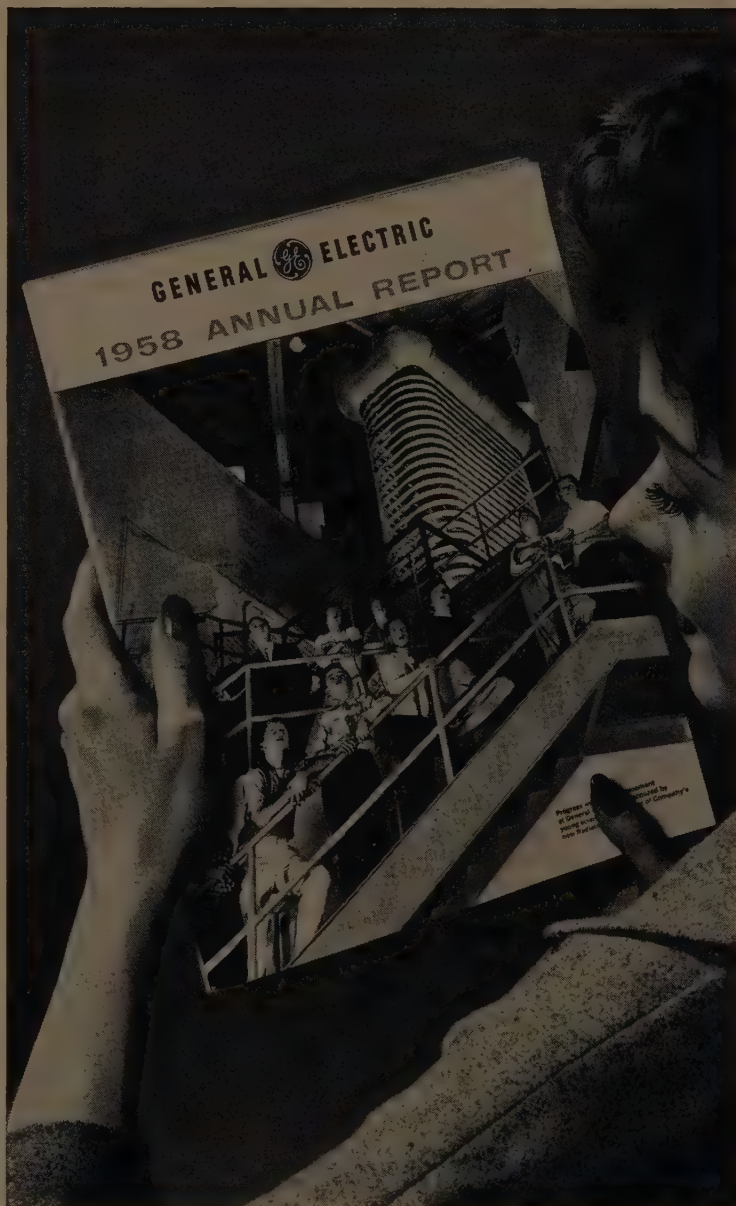
# GENERAL ELECTRIC'S 1958 ANNUAL REPORT

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GENERAL  ELECTRIC

# Product Diversification in Aircraft Manufacturing Industry

by Dr. Murray L. Weidenbaum

THE AIRCRAFT MANUFACTURING INDUSTRY, ever since it attained the production peaks of World War II, has been concerned with the problem of diversifying into new markets and new types of production in order to maintain and expand the over-all scope of its operations.

This subject is of particular relevance at the present time when the current and prospective military procurement programs are increasingly geared toward missiles and away from manned aircraft.

The efforts of the aircraft manufacturing companies in penetrating the civilian markets after World War II took a tremendous number of forms and developments and met with varying degrees of success and permanency. Some of these efforts were frankly designed to take immediate advantage of a temporary demand for consumer items which had been missing from the economy during World War II. Other efforts were designed to utilize the substantial cash reserves accumulated during the war, and to help tide the companies over during the reconversion period.

Many aircraft companies attempted to use their "know how" and to concentrate on lines where their capabilities would be particularly needed, such as producing aluminum canoes and sport boats—items which required their skills in fabricating aluminum products. Some of the "related" products were a bit far afield from their customary product lines, including artificial hands, other prosthetic devices, and stainless steel caskets.

A number of aircraft companies became subcontractors for established firms in civilian markets, building heater cases, parts for musical instruments, automobile parts, plumbing, and cabinets for radios. In some instances, aircraft firms joined with other companies to form new subsidiaries. More usually, aircraft companies—using their war-accumulated earnings and relying on tax provisions permitting the carryback of losses to offset against previously paid taxes—acquired going concerns in other industries.

Typical acquisitions included a producer of motion picture equipment, a manufacturer of precision parts in the automobile field, a designer of prefabricated houses, and a maker of motor buses, trolley coaches, and marine and industrial engines.<sup>1</sup>

A number of channels of distribution were used by the

aircraft companies in marketing the products on which they were prime producers. Subcontracting work obviously did not present such problems. Some produced for exclusive distribution by wholesalers and jobbers. Some adopted the attitude, "We make 'em—you sell 'em." The early postwar period was an era of shortages and hardly typical of the current situation or the experience to be expected in the future.

## DIVERSIFICATION STILL 'POPULAR'

Although there has been a very significant "shaking down" of these civilian consumer-type activities since the initial postwar expansion, aircraft companies are still attempting to enter or expand commercial non-aviation markets.

Diversification efforts of aircraft companies during the last three years have included such diverse operations as: the formation of a wholly-owned subsidiary to specialize in the field of automatic controls; the establishment of a division to manufacture hydraulic systems for farm machinery; the acquisition of a firm making earth-moving equipment; the construction of wall panels for commercial buildings; and the marketing of a multi-purpose heavy-duty land vehicle.<sup>2</sup>

It is difficult to ascertain the success of these various efforts. Some of these products and divisions are still very much alive. News of many non-aviation activities of aircraft manufacturing firms has not appeared in recent years. To some extent, this may reflect their complete integration into the parent firm and the reluctance of companies to release data concerning their individual operating units. Undoubtedly, many of these activities were abandoned as unsuccessful or marginal, aside from the ones which were obviously temporary.

## ANALYSIS OF CIVILIAN EXPERIENCE

On the basis of the experience during the period since the end of World War II, it would appear that the attempts by aircraft manufacturers to diversify went through four different phases: (1) the immediate postwar burst of enthusiasm; (2) a settling down period; (3) a down-grading during the Korean military expansion; and (4) a renewed interest resulting from the cold war cutbacks in military procurement.

### *Immediate Postwar Burst of Enthusiasm*

Faced with very substantial cancellations of military orders at the end of World War II, most of the firms embarked on non-aircraft activities. Their specific ventures, though numerous, could be grouped into the following general categories:

2. Aircraft Industries Association, *Aircraft Year Book*, 1957, 1958.

1. Cf. "Aircraft Firms Diversifying Products," *Automotive and Aviation Industries*, February 15, 1946, pp. 17-18 et. ff.; "Aircraft Makers Diversifying," *Business Week*, September 28, 1946, pp. 21-22.

Murray L. Weidenbaum is product economist for Boeing Airplane Co. Formerly he was economist for General Dynamics Corp.'s Convair Division and for the U. S. Bureau of the Budget in the Executive Office of the President. He holds a Ph.D. in economics from Princeton University. Dr. Weidenbaum says that views expressed here are strictly personal.



- (A) The temporary utilization of idle capacity and manpower, to maintain a going organization and to tide it over until peacetime aircraft production would get under way.
- (B) The manufacture of items which it was hoped would win a permanent market, thus diversifying its operations and lessening its dependence on military orders.
- (C) The purchase of or investment in firms which would either broaden its base of operations or merely earn a good profit.

Under (A) and (B), the production and marketing arrangements varied. In some cases the aircraft companies produced end products and in other cases they served as subcontractors or suppliers for companies already firmly entrenched in the civilian field. Also, a number of marketing alternatives were available and used—direct sales, licensed distributors, or general jobbing and wholesaling channels.

#### *A Settling Down Period*

Gradually the shock of postwar adjustment wore off. Military orders continued, although at a rate sharply reduced from wartime levels. Civilian aircraft were being produced. The numbers involved were far smaller than envisioned in the early postwar forecasts. Also, the firms which traditionally dominated civilian markets, and had temporarily converted to military production during the war, had once again asserted their supremacy in many civilian areas. Traditional suppliers soon caught up with consumer demand. The aircraft manufacturing companies terminated their leases on a number of government-owned plants and abandoned a number of temporary postwar ventures.

With the tremendous expansion of military orders for aircraft beginning the latter half of 1950, the attention of the industry was increasingly focused on military production. Non-aircraft activities were soft-pedaled during the Korean mobilization period. This was not hard to understand. Priorities were readily available for military orders but were more difficult to obtain for civilian production. More basic, however, was the overriding desire of the aircraft companies to build aircraft rather than canoes or wheelbarrows.

#### A RETURN TO OTHER 'LASTS'

Following the termination of the Korean conflict, there were a number of cutbacks in military procurement, the latest coming in 1957. For reasons of necessity, or of desirability, aircraft firms began once again giving increased attention to non-military and, to some extent, non-aircraft activities. However, the commercial (i.e., non-government sales) activities of most of the aircraft manufacturing companies have remained at relatively low levels. The majority of the large firms had commercial sales of 1% or less during 1952-1955, the most recent years for which industry-wide data are available. The three major producers of commercial transports during that period had commercial sales of between 8 and 14% of their total volume.<sup>3</sup>

Available information does not permit making a split

of commercial sales between aircraft and non-aircraft products. As the firms with significant commercial sales were the same companies which were leaders in commercial aircraft production, it can be seen that the *commercial non-aircraft* sales of aircraft manufacturing firms have been extremely limited in recent years.

#### ANALYSIS OF FACTORS INVOLVED

On the basis of experience to date, it appears that the entrance by an aircraft manufacturing firm into non-aviation areas is not a simple matter. Many problems are involved which do not exist for military production and sales, or which may require different solutions.

Each of the following factors can be crucial in influencing the success of a commercial venture of an airframe manufacturer: the state of the economy; the market for the product; the productive capability required; the type of distribution needed; the financial requirements; and changes in organizational structure.

#### *The State of the Economy*

In the period immediately following the end of World War II there was a tremendous unsatisfied business and consumer demand for the goods which had been in short supply or unavailable during the war years. Almost any standard item which an aircraft company could manufacture quickly could have been marketed during the years 1945-1946. The competitive situation is quite different today. A period of hard competition has resulted in mergers, discontinuance of various civil product lines, and other forms of retrenchment in order to survive in the commercial market. Moreover, the outlook is for increased competition and hence, increased selectivity in the choice of products to be introduced and markets to be penetrated.

#### *The Market for the Product*

Performing market research for commercial items is quite different in many respects from gaging the market for military aircraft. It is not a matter of estimating the strength of potential aggressors or the requirements of our own military force objectives. Rather, it is a matter of forecasting the level of a fairly specific business and/or consumer demand, depending on the nature of the product.

In the case of an established civilian product, the demand level may be fairly predictable. The consumption of paper, for example, follows very closely fluctuations in the nation's individual incomes. The manufacture of such products as tobacco, cotton, and textile bags has followed straight line trends for the past 15 years. In contrast, sales of new products have usually been more erratic. The production of television sets and antibiotics rose spectacularly during the years immediately following the end of World War II. However, the production trends leveled off as the markets became relatively "saturated" and sales have been rather sluggish in more recent years.<sup>4</sup>

When surveying the potential market for a new product, particular consideration must be given to existing products which the new item must compete against: current and

3. U. S. House of Representatives, Committee on Armed Services, *Aircraft Production Costs and Profits*, Washington, 1956, p. 2725.

4. "A New Look at Production Growth Rates," *Survey of Current Business*, April 1957, pp. 5-12 et. ff.; "Analysis of Long-Term Markets," *Survey of Current Business*, November 1957, pp. 17-22.

foreseeable shifts in the structure of business and consumer demands, and plans of potentially competitive firms. For example, in 1956 a number of types of structural steel were in short supply. However, it would have been extremely risky, on the basis of the current strong demand levels alone, for a non-steel manufacturing company to have begun the construction of a steel mill in order to take advantage of the apparently good market in structural steel. Then, several other factors were present.

First of all, existing steel companies had under way substantial expansion programs to more than cover unfinished short-run demands. Moreover, surveys of business investment intentions at the time showed that most firms were curtailing their planned capital expansion programs for the next several years. Hence, the supply of structural steel was in the process of being expanded at a time when the demand was tapering off. This was not a desirable period for a firm to enter the business of manufacturing steel.

#### *Productive Capability Required*

The basic factors required for productive activity are plant and equipment, materials, man power, and management organization. Each of these factors is needed in very specialized forms. In the case of airframe manufacturing companies, the factor of plant and equipment presents a number of complications. The greater part of the plant and equipment of the industry is owned by the Federal Government and is used in connection with military contracts.

Before these government-owned facilities may be used for commercial production, arrangements have to be made with the military service involved to lease a portion or all of one or more structures. Moreover, these facilities are quite specialized. The nature of aircraft plants and the type of equipment which they contain set limitations on the type of civilian production which can be carried on. Also, the scale of the major aircraft plants is such as to set fairly high requirements for production in order to make economic use of the facilities.

The other factors of production—materials, man power, and management—are usually available with less difficulty. In fact, a major reason for aircraft companies diversifying into other lines is to maintain their productive organizations in being.

#### *Type of Distribution Needed*

The marketing organization required by a military aircraft manufacturer is rather minor compared to that of the typical firm selling to the civilian market. The marketing of commercial aircraft—the area in which most airframe manufacturers have some civilian experience—more closely approximates the case of sales of specialized equipment such as freight cars and merchant ships, rather than the more frequently mass-produced civilian items.

The type of marketing organization required for civilian products will vary with the type of product and with the market to be penetrated. In the case of production on subcontracts for other firms, the sales job would be performed prior to production and would normally be done by a limited staff. In the case of sales of some end products, franchised representatives, jobbers, and other whole-

sale distributors often assume the marketing responsibility. For direct sales to other industrial firms, a sizeable but limited marketing staff would be required. In contrast, sales to the consumer market often require the establishment and maintenance of large sales and advertising departments, particularly where brand identification is desired.

#### *The Financial Requirements*

The major airframe manufacturing companies operate with far less privately-supplied capital than do other corporations with comparable sales volumes. This situation arises because the Department of Defense usually supplies most of the plant and equipment and, in the form of progress payments, a significant share of the working capital required.

For aircraft industry, invested capital in 1955 equaled 6% of total sales, and corporate net worth (invested capital plus retained surplus) equaled 15% of sales. The corresponding ratios for industry as a whole were significantly higher—18% or 44%, respectively.<sup>5</sup>

The airframe manufacturer who embarks upon civilian production must be prepared to meet the additional financial demands which may arise. In the case of a company renting government-owned plant and equipment, the major financial requirement would be for adequate working capital, particularly until a satisfactory sales volume has been attained.

A corollary of this situation is that the aircraft industry achieves a greater proportionate return on its investment than other manufacturing companies. The expansion in civilian markets would tend to reduce this ratio. In 1955, the major airframe manufacturers earned before tax profits of 50% of net worth and after tax profits of 24% of net worth. In contrast, manufacturing companies as a whole experienced a 24% pretax and 12½% after tax return on net worth during the same period. It should be noted that a number of individual non-aircraft firms have attained returns on net worth as well as profit on sales percentages substantially in excess of those for the aircraft industry.

#### *Changes in Organizational Structure*

The expansion of a company's product line or of its market area often necessitates changes in its organizational structure. As a first step, many companies establish a new products group. These units are somewhat similar to the PWP Departments (Post War Planning units) established by many aircraft companies during World War II.

A recent conference sponsored by the American Management Association analyzed the various methods which companies are using to develop new products. It was reported that the odds are five-to-one against success for a new product after it reaches the market. Many companies have been without organized product development programs despite this pressure. The participants at the conference attributed the problem to two major factors: (a) the failure by management to appreciate the complexities of introducing a new product into today's competitive markets; and (b) the reluctance of various departments to surrender any of their control in the development of new products. It was

5. U. S. House of Representatives, op. cit.; *Economic Report of the President*, January 1958, pp. 179-182.



# THE OHIO OIL COMPANY

reports a year of new achievements in 1958\*

- \* Discovery of oil in Libya and Venezuela.
- \* An increase in North American crude oil reserves, despite high production.
- \* Record-high sales of refined products.
- \* Progress in research and in other activities looking toward the future.

## HIGHLIGHTS OF THE YEAR

1958

1957

### FINANCIAL

Net Sales and Other Income . . . . .	\$274,401,000	\$291,982,000
Net Income . . . . .	\$32,156,000	\$41,490,000
Net Income per Share . . . . .	\$2.45	\$3.16
Dividends per Share . . . . .	\$1.60	\$1.60
Book Value per Share . . . . .	\$27.97	\$27.12
Capital Expenditures . . . . .	\$39,241,000	\$64,799,000
Exploration Expense . . . . .	\$27,349,000	\$25,149,000
Payrolls . . . . .	\$44,707,000	\$44,256,000

### OPERATING

Net Crude Oil and Natural Gas Liquids Produced—		
Barrels per Day . . . . .	100,681	106,625
Natural Gas Produced and Sold—		
Thousand Cubic Feet per Day . . . . .	288,496	290,130
Crude Oil Transported—Million Barrel-Miles . . . . .	18,825	24,469
Refined Products Transported—Million Barrel-Miles . . . . .	1,360	1,396
Crude Oil Refined—Barrels per Day . . . . .	41,425	41,521
Refined Products Sold—Barrels per Day . . . . .	42,668	41,634

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## 71st ANNUAL REPORT

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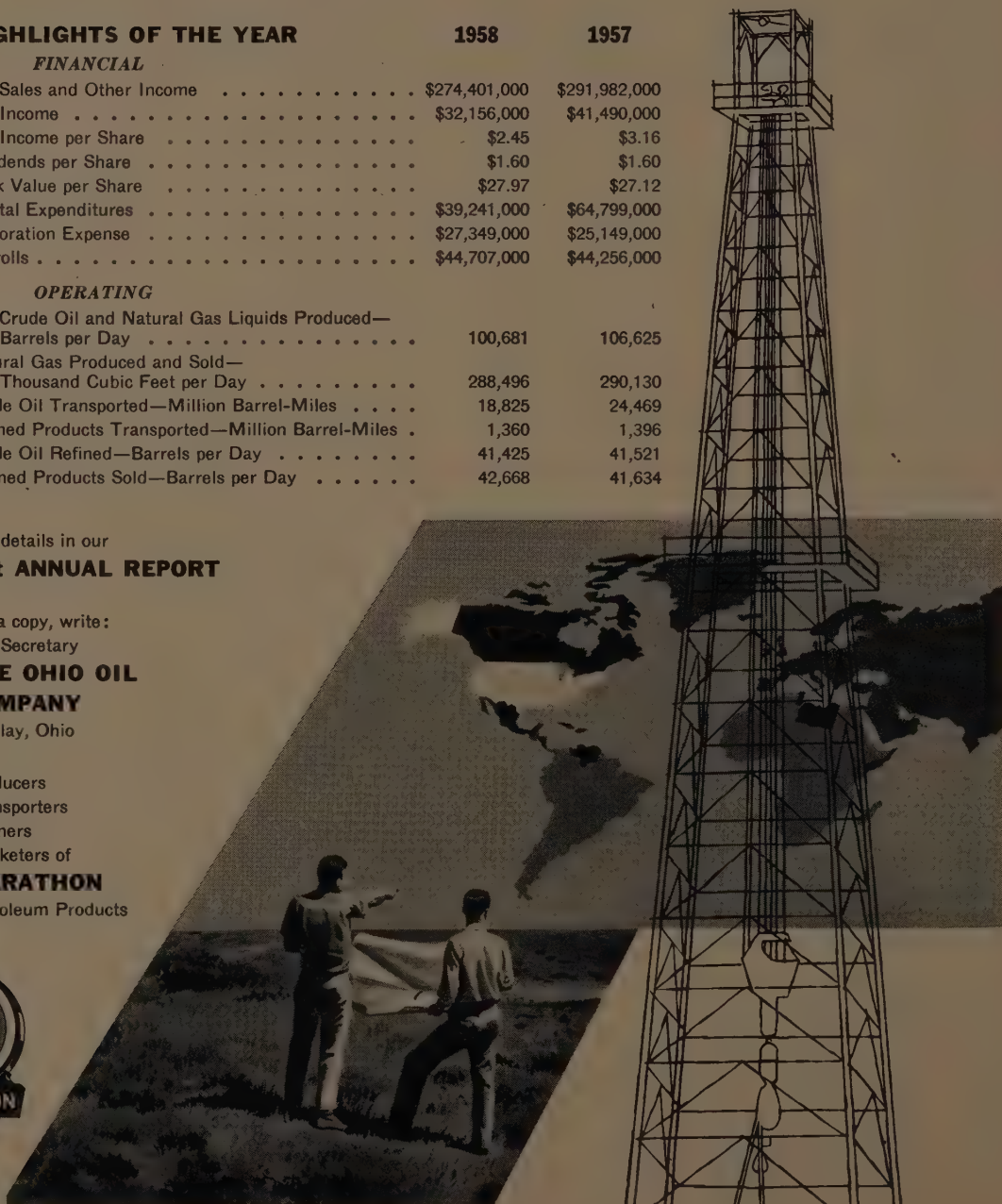
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Marketers of

**MARATHON**

Petroleum Products



found that most successful companies make use of a product planning group that concentrates specifically on smoothing product development. These may be either of the advisory and co-ordinating nature or, an operating unit of the company.

For example, one major company uses a committee consisting of representatives from each major division of the company—research, engineering, manufacturing, market research, and sales. The committee meets from time-to-time during all stages of product development to discuss the problems faced by each department. It advises top management on the solution of interdepartmental differences but does not make any direct operating decisions.

Another large company, on the other hand, established a product development group within each division. An operating unit, it is responsible directly to the general manager of the division. The group supervises all phases of new product development, directing the various departments on the individual phases on which they are working. A number of aircraft manufacturing firms established new divisions at various times to handle their actual or anticipated non-aircraft business. Separate divisions for military and commercial activities may have especial merit where both use parts of a single government-owned facility for production of different types of items.

#### DRAWBACKS AND GAINS

It would be well to review the pitfalls and risks that may be encountered, as well as the special gains that might be made, when an aircraft manufacturing firm attempts to diversify its operations into non-aircraft fields. Following are some of the difficulties that often face a firm attempting to enter the civilian market:

1. The problem of penetrating a market dominated by entrenched firms.
2. The problem of selling to a market without the benefit of a well-known trade name or brand name.
3. The problem of producing an item in a market with no previous experience (i.e., concentrating on quantity production instead of close tolerances).

With adequate planning, financing, and time, the above and related problems can often be hurdled. However, a number of additional problems and risks are involved for an aircraft company. If the attempt to penetrate civilian non-aviation markets is successful, the military departments might tend to lose interest in the company as part of its "hard core" of prime suppliers. Also, the company may sacrifice some of the flexibility it had in taking up new military procurement programs. Particularly, it might tend to ignore or give little attention to military research and development work and other low-profit defense items in which new air weapon systems germinate.

If the attempt to penetrate civilian non-aviation markets is unsuccessful, the company's "venture capital" might be depleted. A costly failure in the civilian market—often involving substantial investment, production, and marketing cost prior to initial sales—might result in severe damage to the company's basic strength. It should be noted that a successful penetration of the civilian market would bring many advantages to a company primarily dependent on

military orders. These prospective gains from diversification include the following:

#### *Insulation Against Sharp Fluctuations*

Industrial production has fluctuated within a range of 112-146 (1947-1949 = 100) during the years of 1950-1957, while military expenditures ranged from \$12 billion to \$44 billion during the same period.

#### *Increases in Profit Margins*

Profits as a per cent of sales are normally smaller on military contracts than on civilian production. In 1955, the before tax profits of the major airframe manufacturers averaged 7.2% of sales and the after tax profits averaged 3.4%. In comparison the profit ratios of all manufacturing companies in that year were 10.0% before taxes and 5.4% after the payment of Federal income taxes. The Aircraft Industries Association has estimated that the profits of major airframe producers averaged 2½% on sales after the payment of income taxes in 1957.

#### *Maintenance of a Going Organization*

This non-balance sheet factor would not only be important to the company as a potential source of income, but to the military establishment as a part of its mobilization base.

#### GUIDES FOR REVIEWING NEW PRODUCTS

Two major types of diversification activities may be noted: (1) internal or the manufacture of nonmilitary products in existing facilities and (2) external or the penetration of civilian markets through the acquisition of existing firms, the formation of new enterprises, and other activities which do not utilize existing facilities.

In connection with internal diversification, some general guidelines may be formulated on the basis of the foregoing analysis. Five criteria are suggested for the initial review of proposals for the manufacture of commercial products. Products which possess a significant number of the following characteristics might be said to have passed the first "test" and merit more intensive review:

1. A new product or a product for which the demand is expected to increase very substantially.
2. A product whose manufacture requires the fabrication and other existing skills and capacity of an airframe manufacturing company.
3. A product to be sold to or manufactured for an industrial market or other product which does not require the establishment of an extensive distribution organization.
4. A product which can be produced and sold with a moderate financial investment.
5. A product whose development and sale could be accomplished with adaptations of the existing organization.

It may be apparent why products which do not meet most of these criteria would not be promising. For example, a product which is similar to established products as to cost, function, or other important characteristics, or one for which the demand is expected to be stable or declining, would meet particularly stiff competition from firms already entrenched in the civilian market. Similarly, a



product whose manufacture requires large additions to existing facilities and new engineering and/or production skills would not contribute to the utilization of idle capacity and manpower, but create additional burdens and problems.

Also, a product which would require the establishment of an extensive marketing organization would not be ordinarily suitable for an airframe manufacturing company. The industry has generally avoided direct consumer sales, particularly those involving extensive sales and advertising departments. Moreover, a product whose introduction required such additional activity would entail that much greater risk than items which would be sold to industrial firms.

An important limiting factor in considering all suggestions for expansions and diversifications would be the financial investment required. Many companies prefer the "low investment, low risk, moderate income" venture, to the

"high investment, high risk, high gain" venture. This is an area of minimizing loss rather than necessarily maximizing gain. Moreover, in the case of the typical airframe company, which has fairly limited financial resources, the amount of venture capital may be strictly rationed and large investment projects not possible.

Finally, one of the major reasons for an aircraft company diversifying its activities is to maintain a going organization during the troughs of military procurement. Hence, ventures which would involve very severe modifications of the existing organizational structure could impair the company's effectiveness in military fields.

It should be noted that these criteria describe "ideal" situations and that judgment and subjective evaluation would be necessary in deciding whether a given suggestion came close enough to the ideal to merit further consideration.

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## Ninth Session on Security Markets Gets Underway in New York June 22

This year's ninth annual session on the nature and operation of security markets is scheduled to get under way Monday, June 22, in the offices of the New York Chamber of Commerce.

Presented each year, in New York City, by the University of Vermont and the New York Financial Community, the "Economics of Capital Formation" is directed by Dr. Philipp H. Lohman, converse professor and chairman of the University's Department of Commerce and Economics.

The six-week course (June 22 through July 31) "is designed to give students a better understanding of the social and economic functions of the institutions which constitute the financial industry." Moreover, "it is aimed to install in students an awareness and understanding of the contributions of the financial community to a dynamic and more stable national economy. In so doing it helps to narrow the chasm which exists between the campus and the market place."

As in previous years, the 1959 course will be high-lighted with lectures by outstanding men in their respective fields. In addition, the two New York stock exchanges will be visited, as well as the Federal Reserve Bank of New York. Included among a long list of speakers, and some of the topics, are:

"The Work of the Securities Analyst," by Lloyd S. Coughtry, Lehman Corp.; "Regulation of Securities Markets," by James C. Sargent, commissioner, Securities and Exchange Commission; "The Corporate Bond Market," by Jonas H. Ottens, Salomon Bros. & Hutzler; "Investment Management of Pension Plans," by David S. Carroll, Chase Manhattan Bank; and "Comments on the Aluminum Industry," by Frederick R. Darrow, The First Boston Corp.

Also, "Outlook for the Rails," by Pierre R. Bretey, Hayden, Stone & Co.; "IBM and Electronics," by Harry M. Sibley, International Business Machines; "Economic Growth in Canada since 1939," by James R. Clarke, Dominion Securities Corp.; "Listing of Securities on the American Stock Exchange," by Martin J. Keena, American Stock Exchange; "Over-the-Counter Securities Market," by Col. Oliver J. Troster, Troster, Singer & Co.; and "Outlook for the Oil Industry," by Frank Woodfin, petroleum analyst.

The course gets under way with an address by Dr. Lohman on "The Role of the Financial Industry in the Process of Capital Formation."

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(Editor's note: Space precludes listing all the topics and speakers. For further information, contact Dr. Philipp H. Lohman, University of Vermont, Burlington, Vt.)

# PRESIDENT'S REPORT

*From Northern States Power Company and the 4 states we serve*



## NSP efficiency climbs with 425,000 KW in 4 new generating units

### NEW PLANTS CUT BTU USED PER KWH 22.8% IN 10 YEARS

Just as prosperity of the area that it serves is vital to an electric utility, so the efficiency of a utility is important to the progress of the people whom it serves — including its shareholders.

Today, Northern States Power Company is setting new records in the efficiency of its electric generation—efficiency that helps the company to trim costs and keep electricity cheap, thus encouraging continually increasing use of power.

How modern equipment has helped step up NSP's efficiency is illustrated by these facts —

- Generating units less than 10 years old account for 45% of NSP's generating capability.
- Four new units put in service since August, 1952 have a generating capa-

bility of 425,000 kw and are helping reduce NSP's Btu per kwh.

- The new units have helped cut NSP's Btu consumption per kwh 22.8% in 10 years, with fuel costs up only 40% while production of kwh's jumped 101% in the same period.
- Two new units each with a capability of 170,000 kw—largest and most efficient in the NSP system—will go into service in 1959 and 1960, helping to lower the Btu per kwh still further.

A new stage in growth makes NSP confident of further increases in efficiency. Until recently, NSP felt it necessary to disperse plants widely over its system to assure ample reserves everywhere. Today's system load justifies larger transmission lines, allowing concentration of larger, highly efficient generating plants in the areas of most favorable fuel costs. Both customers and investors gain as a result.

### 44.3% OF NSP ELECTRIC REVENUE COMES FROM RESIDENTIAL AND RURAL SALES

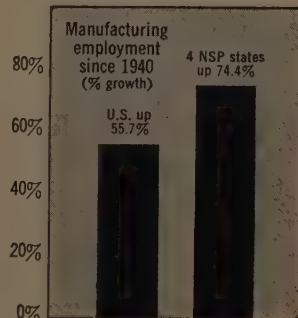
Up from 38% ten years ago, this is highly desirable revenue because it is less sensitive to business fluctuations—a built-in stabilizer. Increasing use of power in homes and industry has contributed to 25 straight years of revenue growth for NSP.

\* \* \*

GROWTH WITH STABILITY marks the economy of the 4 NSP states: Minnesota, Wisconsin and the Dakotas. They have a diversified agriculture, diversified industry. Within manufacturing, also, there is a healthy balance — ranging from the stability of food processing to the atomic-age growth of "brain industries."

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*Allen H. Irving*  
President,  
Northern States  
Power Company



in a growing America—

# AN EVER BIGGER ROLE FOR WHITE!

## 1958—the year at a glance

	1958	1957
Net Sales	\$269,476,766	\$225,912,070
Net Income	7,191,352	6,833,205
Net Income per Share of Common Stock	6.97	6.66
Cash Dividends Paid per Share of Common Stock	3.00	3.00

### REVOLUTIONARY NEW WHITE 5000

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# WHITE

# The Liquefied Petroleum Gas Industry Today

by Mark Anton

THE NAME "LP-Gas" dates back comparatively few years. The product which this name covers has been commercially available for some 30 years. Two of the paraffin hydrocarbons, propane ( $C_3H_8$ ) and butane ( $C_4H_{10}$ ), are the principal constituents of Liquefied Petroleum Gas.

LP-Gas (still occasionally called "bottled gas") is usually either "commercial propane" or "commercial butane" or mixtures thereof. The commercial product which comes from natural gasoline (or "natural gas liquids") plants, or petroleum refineries, usually contains small quantities of other related hydrocarbons. The Natural Gasoline Association of America states: "Commercial Propane shall be a hydrocarbon product composed predominantly of propane and/or propylene as determined by the NGAA LPG Vapor Pressure and Commercial Propane Residue tests. . . ."

LP-Gas is a by-product of practically every U. S. petroleum refinery, although somewhat the greater production comes from the Mid-Continent oil and gas fields. Commercial propane and butane are two of the important components of "the natural gas liquids." The name "gasoline"—common in the past—is still used as the term describing "natural gas liquids." The term "casinghead gasoline," often used years ago to describe "natural gasoline," is seldom heard today. LP-Gas is shipped from many seaport cities, as well as from many inland Texas, Oklahoma, Louisiana and Arkansas points.

A perfect portable fuel, LP-Gas is shipped and transported to the point of usage as a liquid, then used as a gas. Its unique quality of readily changing from a vapor to liquid state under pressure, and vice versa, upon release of that pressure, is responsible for this virtue. With a high BTU value (propane 2,500, and butane 3,200 per cub. ft.), it is a clean gas which burns "just like city gas." Its liquefiable quality enables one cubic foot of propane weighing 32 lbs. to vaporize into 270 cubic feet of gas—enough to do the work of 675 cub. ft. of natural (1,000 BTU) gas, or 1,250 cub. ft. of manufactured (550 BTU) gas.

The writer has been associated with the LP-Gas industry for more than 30 years and in that time has seen many changes. The "LPG's Marketed Production" chart (Chart I), shows a slowly mounting growth for the first 15 years, with a steadily upward climb of nearly 500,000,000 gals. per year for the past 15 years (somewhat more for the last eight years). During the past eight years, population

has increased 6% per year on the 1950 base, while for the same time LP-Gas sales have increased at the rate of 16% per year. This steady growth has not only been due to the increased number of families using LP-Gas, but also because of the greater use per family for such added appliances as water heaters, clothes dryers, space and central house heating units.

## NEW METHODS OF MARKETING

This large and continuing growth has forced industry to solve an ever-changing series of problems. Our problems of yesteryear were to get safe, satisfactory and efficient appliances; to obtain customer acceptance of the use of our product in these appliances; and to develop a sales and service organization. Although these problems are still with us, they are well understood and under control. Increased usage due to the development of new uses—industrial, motor fuel, agricultural—and particularly the increased use of LP-Gas for house heating, has set up new problems. We have the production and we have the market; but the matter of getting it from the source of supply to the point of use, at the right time, has forced the industry to develop new solutions to the transportation and storage problems.

A look at the growth of the industry and the number of gallons and material handled will give you a good idea of what I mean. There was a time when practically all of the LP-Gas was shipped in tank cars. Today, only 40% of it is shipped in tank cars, the balance by pipeline, in tankers or barges, and by truck transports. Tank car shipments have shown only a moderate increase in recent years, with most of the increased volume going to other forms of transportation. Freight rates have increased so greatly that until the recent cut-back in the East, transportation costs made up two-thirds of the total cost of the delivered product shipped from the Mid-Continent. Even now, freight from Oklahoma-Texas is 60% of East Coast laid-in cost. Because of the dominating position of the Mid-Continent production, this delivered price has had an important bearing on the price set for product coming from the East Coast production and shipping points.

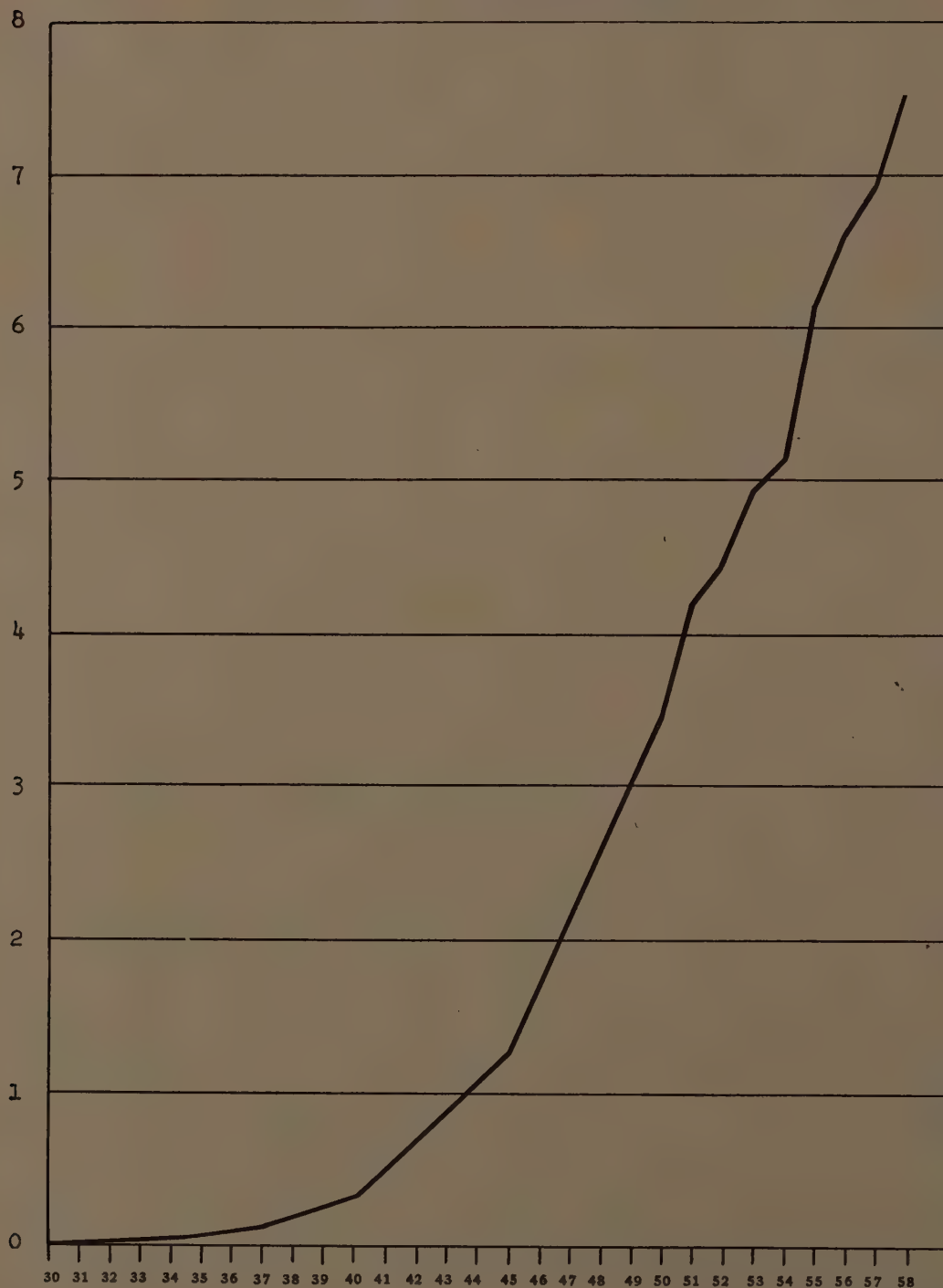
The growing acceptance of the use of LP-Gas for house heating has caused an ever-increasing winter demand, with the winter-summer ratio going higher and higher each year. Years ago, the summer seasonal market was an important one. Summer seasonal usage was common even in year-round locations because of the use of coal combination kitchen heater type ranges, so that summer use was higher than winter. Chart II shows that this no longer is the case. Today the winter-summer ratio is about 1.7 to 1; i.e., 70% greater rate of usage obtains in winter than in summer. This high ratio has made it necessary to transport much LP-Gas by truck at the season of the year when highway and rail conditions are the least favorable. Thus, it has

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*Mark Anton, president of Suburban Propane Gas Corp., started his career in the Liquefied Petroleum Gas industry 30 years ago when he founded his own company. From a one-man customer (himself) business, the firm has grown into a \$56,000,000 corporation. During World War II Mr. Anton served with the Petroleum Administration for War and the Smaller War Plants Corp.*



CHART I  
Marketed Production of LP-Gas in Billions of Gallons



Source U. S. Bureau of Mines

pushed the winter price upward, and has caused the development of large underground storages for the fly wheel effect.

HARD SELLING A PRIME FACTOR

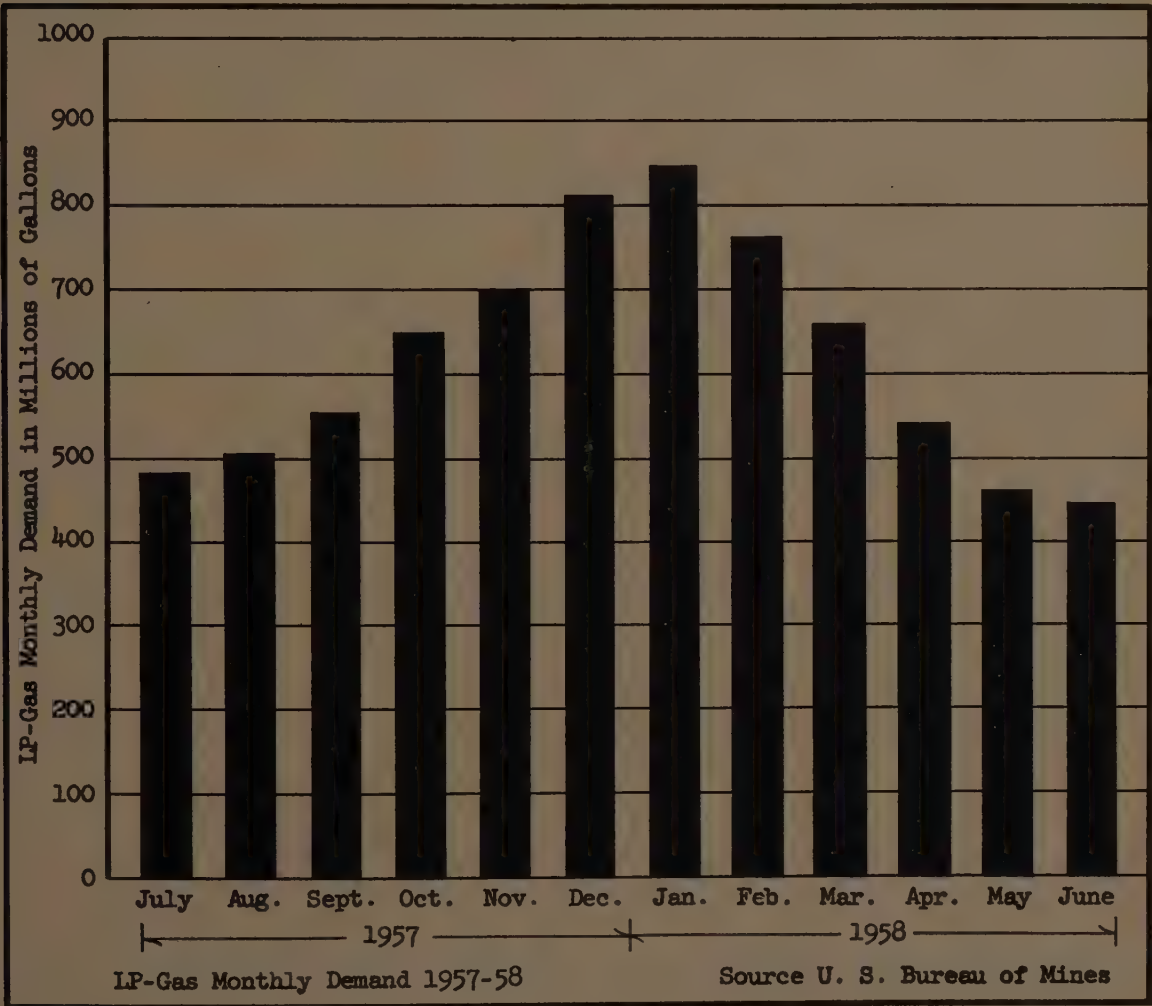
Underground salt storage is by far the most reasonable to construct, but even mined storage costs far less than steel pressure tank storage. Refrigerated storage has been proposed, and several installations built, but thus far there has been no wide usage of this type. The high winter product cost raises the selling price for a volume market for which the unit price should be as low as possible to compete with the other less expensive and less convenient fuels. Gas heating commands a premium price but it takes hard sell-

ing to overcome the price disadvantage faced in certain areas. These problems are being solved, however.

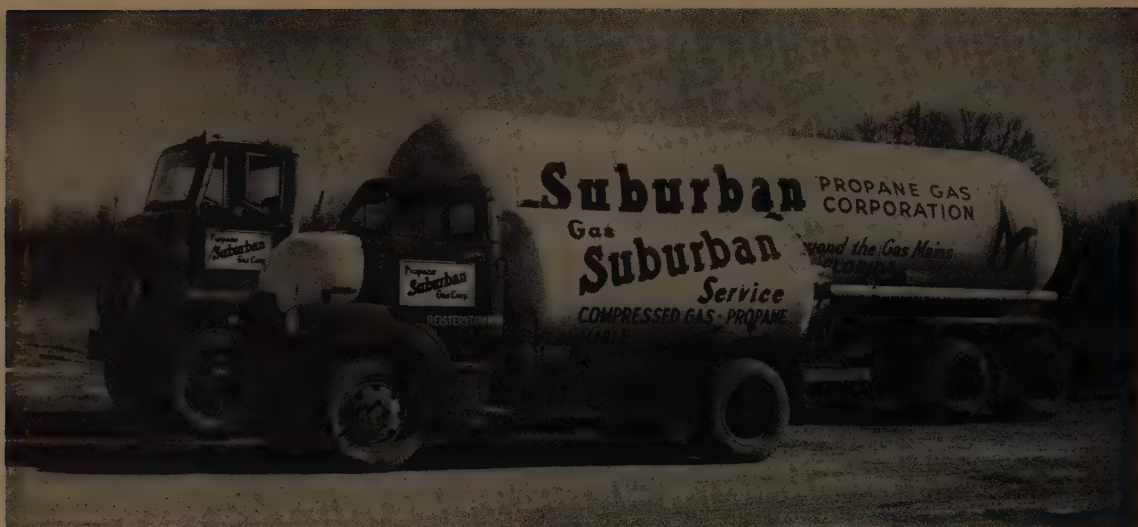
A great deal of underground storage has been mined and washed out of salt veins in the last five years. Our own company storage amounts to some 12,000,000 gals. This has enabled us to assure our customers of product in the wintertime. However, the greatly increased year-round and winter use of LP-Gas has encouraged the development of large underground storage by the industry generally. As a result it has become increasingly difficult to buy reasonably priced product, even during the summer months, to fill our underground storage.

The writer does not believe that any type of storage—underground, refrigerated, or whatever—is the answer to

CHART II







*Here is a modern 8,500 gal. capacity LP-Gas truck transport, in background, compared with a 1,200 gal. capacity tank truck which was considered "the last word" prior to World War II.*

the summer-winter ratio. We simply must develop new summer uses such as air conditioning and more agricultural uses. Industry must provide consumer rates which will make year-round use of LP-Gas attractive in order to capture the summer loads and offset the high winter use. As a utility gas company executive said recently: "If we do not balance our winter load by selling air conditioning, the electric utilities may balance it for us by providing electric heat during the winter months to balance their air conditioning load in the summer."

#### TRANSPORTATION DIFFICULTIES CITED

We are trying to solve the transportation problem, with some degree of success. There is much talk of pipeline transportation. One pipeline is already in existence, carrying product to southern Ohio, and a second is proposed across New York State. Tankers have been used for some years to get product from the Gulf Coast to Newark, N. J., and tank barges operate in the Gulf of Mexico. New larger tank cars have been designed and a few are in use. Difficulties are being experienced in getting improved freight rate structures so that the larger tank cars can be used effectively to transport product at lower cost. The number of old tank cars in use is an economic drag on the use of the more economical sizes.

New large truck transports have helped lower the cost of this type of transportation and increased the radius within which these new transports can be used. A 100-mile haul is usually the maximum at which truck transports can compete with tank car shipments. One 8,500 gal. capacity truck transport can haul 8 to 12 times as much product as can one 10,000 gal. capacity tank car and provide a great deal more flexibility. LP-Gas tank transports have increased tremendously in size. The accompanying photograph shows one of our company's new T-1 transports

contrasted with a tank truck which was considered the last word just prior to the last war.

The delivered cost of product is the sum of cost at the producing plant and transportation cost. The fact that the largest part of the material comes from natural gas liquids in the Mid-Continent area, with the balance from refineries along the East Coast, tends to make the Mid-Continent price plus freight the governing factor in determining the selling price anywhere. Today very little propane is being imported, although much propane in the East Coast refineries is produced as a result of refining foreign crude oils. There must be a lower delivered price in the East if we are to realize the market which is there for us to take. We must try to help stabilize that price by balancing our summer and winter loads, and by providing large storage of economical type when possible. Most important of all, we must have lower priced product in the East. This lower cost is needed to enable us to sell house heating and air conditioning at a price the customer can afford to pay while affording us a reasonable rate of return on the relatively high investment necessary to provide the service. If the price is right, the market is there.

These are a few of the problems as I see them, looking back over a vista of more than thirty years. The fact that these problems exist is due to the tremendous strides made by the LP-Gas industry in the past, so I am most hopeful that we will continue to solve our problems and continue to grow. We have the perfect fuel! It can be transported anywhere that a man can walk. There are unlimited portable uses where nothing else can touch LP-Gas, just as there are uses such as the implant industrial uses where even with a higher price it is preferred over other motive power. Our problems are a reflection of our terrific growth; and the fact that we still have them indicates we are continuing to grow.

# Highlights from **COMMERCIAL CREDIT'S** 47th ANNUAL REPORT

## FINANCE COMPANIES

Wholesale Financing  
Instalment Financing  
Commercial Financing  
Equipment Financing  
Fleet Lease Financing  
Rediscounting  
Direct Loans  
Factoring

## INSURANCE COMPANIES

Automobile Insurance  
Credit Insurance  
Health Insurance  
Life Insurance

## MANUFACTURING COMPANIES

Pork Products  
Metal Products  
Heavy Machinery  
and Castings  
Malleable, Grey Iron and  
Brass Pipe Fittings  
Metal Specialties  
Roller and Ball Bearing  
Equipment  
Machine Tools  
Toy Specialties  
Pyrotechnics  
Printing Machinery  
Valves

	1958	1957
<b>GROSS INCOME</b> .....	\$ 163 672 045	\$ 174 725 311

### NET INCOME:

Net income before interest and discount charges.....	\$ 90 980 103	\$ 98 963 983
Interest and discount charges.....	42 732 824	47 699 540
Net income from current operations, before taxes.....	\$ 48 247 279	\$ 51 264 443
United States and Canadian income taxes.....	21 444 888	24 367 474
Net income credited to earned surplus.....	\$ 26 802 391	\$ 26 896 969
Net income per share on common stock.....	\$5 29	\$5 33
Common shares outstanding at end of period.....	5 066 255	5 045 565

### RESERVES:

Reserve for losses on receivables.....	\$ 18 617 824	\$ 19 170 217
Unearned income on instalment receivables.....	79 137 245	80 900 216
Unearned premiums—Insurance Companies.....	27 954 932	31 915 207
Available for credit to future operations.....	\$ 125 710 001	\$ 131 985 640

Operations shown separately are, briefly:

### FINANCE COMPANIES:

Gross receivables acquired:		
Motor, finance leases and farm equipment and other retail instalment.....	\$ 768 708 228	\$ 918 171 114
Motor, farm equipment and other wholesale notes and advances.....	1 105 596 313	1 553 479 488
Factoring, open accounts, notes, etc.....	1 195 540 684	1 227 421 903
Direct and personal loans.....	154 641 630	131 365 861
Total receivables acquired.....	\$3 224 486 855	\$3 830 438 366
Total receivables outstanding December 31.....	\$1 338 455 714	\$1 447 184 063
Net income of Finance Companies.....	\$ 16 257 950	\$ 15 824 956

### INSURANCE COMPANIES:

Written premiums, prior to reinsurance.....	\$ 27 727 167	\$ 34 632 251
Earned premiums.....	30 052 311	35 161 496
Net income (including Cavalier Life Insurance Co.).....	7 906 844	6 820 050

### MANUFACTURING COMPANIES:

Net sales.....	\$ 133 233 066	\$ 136 321 975
Net income.....	2 637 597	4 251 963



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**COMMERCIAL CREDIT COMPANY** Baltimore 2, Maryland

*Copies of our 47th Annual Report available upon request*



# FINANCIAL HIGHLIGHTS

## 63<sup>RD</sup> Annual Report

	1958	% Increase Over 1957
Common Dividend Rate	\$2.40*	—
Earnings Per Share (Company only)**	\$3.70	22.1
Gross Electric Plant	\$1,268,323,599	11.8
Gross Revenue	\$256,243,262	17.1
Operating Expenses	\$200,572,847	15.8
Taxes	\$73,119,089	31.0
Net Income	\$40,005,407	26.7
Payrolls	\$53,370,776	3.9
Total Meters	1,561,874	3.9

### NEW PLANT

Two steam units at Huntington Beach, totaling 435,000 kw, completed; additional capacity under construction totals 526,000 kw.

### PERMANENT FINANCING

Two security issues sold for \$75,164,950, including 4.78% Preferred Stock and Series K (4%) Bonds.

### \*DIVIDEND INCREASE

Quarterly dividend raised to 65¢ (equivalent to \$2.60 annually) on December 18, 1958, payable January 31, 1959.

### \*\*EARNINGS PER SHARE

Consolidated earnings per share were \$3.74 and \$3.08 in 1958 and 1957 respectively.

### CONDENSED CONSOLIDATED BALANCE SHEET Dec. 31, 1958

#### ASSETS

Electric Plant . . . . .	\$1,067,263,964
Investments and Other Assets . . . . .	8,394,355
Current Assets . . . . .	88,934,954
Deferred Charges . . . . .	3,591,176
Capital Stock Expense . . . . .	3,396,504
Total Assets . . . . .	<u>\$1,171,580,953</u>

#### LIABILITIES

Stated Capital and Surplus . . . . .	\$ 512,568,671
Long Term Debt . . . . .	540,464,700
Current Liabilities . . . . .	84,497,348
Deferred Income Tax Reserve . . . . .	15,036,103
Other Reserves and Liabilities . . . . .	19,014,131
Total Liabilities . . . . .	<u>\$1,171,580,953</u>

For a copy of Southern California Edison's 1958 Annual Report write: T. J. Gamble, Secretary, P.O. Box 351, Los Angeles 53, California.



### SOUTHERN CALIFORNIA EDISON COMPANY

Edison Building • 601 West Fifth Street  
Los Angeles 53, California



# NATIONAL STEEL REPORTS ON 1958 & THE FUTURE

The improvement in general business conditions in the last half of 1958 resulted in the Company's 1958 operations achieving an average rate of 66% of capacity—about 5 percentage points above the average operations of the industry as a whole. Shipments of 3,249,000 tons in 1958 compared with 3,961,000 tons in 1957. Current operations are close to 100% of our present increased capacity of 7,000,000 tons per year. And the near term outlook is promising.

Subsequent to the close of the year, the Company announced a long considered major program of expansion that is of overriding importance to everyone directly associated with National Steel, to the communities where our facilities are located and to users of steel and steel products throughout the nation. The program is this:

## A \$300,000,000 EXPANSION

Representing a most important step in the Company's long-term development, this new \$300 million program, which extends over a three-year period, covers these principal developments:

*New expansion at Weirton.* The program calls for a further rounding out of the Weirton division's facilities, increasing its capacity for the production of electrolytic tin plate, and increasing the production of cold rolled sheets and improving their processing.

*New Detroit-area expansion.* Under the program, ingot capacity at Detroit will be increased from 3,700,000 to 4,200,000 tons per year, and a new 80-inch continuous hot strip mill will be installed. It will be the world's fastest and most powerful. With this new "Mill of the Future" we will have an elasticity of product specification both as to quality and quantity that will be outstanding in the industry. The additional capacity will enable us to provide for future growth in the Detroit area and at the same time supply initially the needs for hot rolled coils of the new finishing mills near Chicago. Requirements of the new mills will help even out fluctuations that may occur in operations of the Detroit plant.

*New Northwestern Indiana plant.* The third section of the program calls for the construction of a sheet and tin plate plant, to be operated by our Midwest Steel division, in the Chicago area with an initial capacity in the order of 1,000,000 tons per year. National Steel has a growing list of customers with increasing requirements in the Chicago area which we can serve better from a fully modern plant there. Simultaneously we can release some of the existing capacity at Weirton to serve the increasing demands of customers who are better located for service from that operation.

As Chairman George M. Humphrey and President Thomas E. Millsop have pointed out, the whole \$300,000,000 expansion "is in

line with our policy of being outstandingly the best in the fields we are in and know so well."

## CONTINUED GROWTH IN 1958

*New construction, new equipment.* Contributing significantly to the overall growth of the Company in 1958, many important projects were completed, including: New sinter plants in operation at both Great Lakes and Weirton, resulting in an increase of more than 20% in the productive capacity of our blast furnaces. The erection of a new building and installation of new slitting equipment and a new color coating line at the Terre Haute, Indiana, plant of Stran-Steel Corporation. The completion and operation of a fourth continuous galvanizing line at Weirton. And the establishment of a new Research and Development Department to conduct a permanent program on a corporation-wide basis.

*New products.* Among those introduced in 1958: The new GLX-W line of columbium-treated steels that provide strength well above the highest levels of ordinary carbon steel—strength obtainable previously only in alloy grades at greater cost. New types of zinc-coated steels with different surface characteristics and heavier coatings on one side than on the other. And steel buildings in factory-applied color—another National Steel first.

National Steel's performance in 1958 clearly indicates the Company's ability to sustain its record of substantial continuing growth. And now, with the launching of our new expansion program, we are taking a bold step that opens whole new vistas of building further expansive strength into the Company as future opportunities are developed.

### 1958: A SUMMARY

	1958	1957
Net sales.....	\$539,957,294	\$640,967,342
Net earnings.....	35,827,414	45,518,884
Net earnings per share.....	4.80	6.13
Total employment costs.....	182,223,804	198,589,029
Total dividends paid.....	22,298,906	29,667,767

A copy of our 1958 Annual Report  
will be sent upon request.

NATIONAL STEEL

GRANT BUILDING



CORPORATION

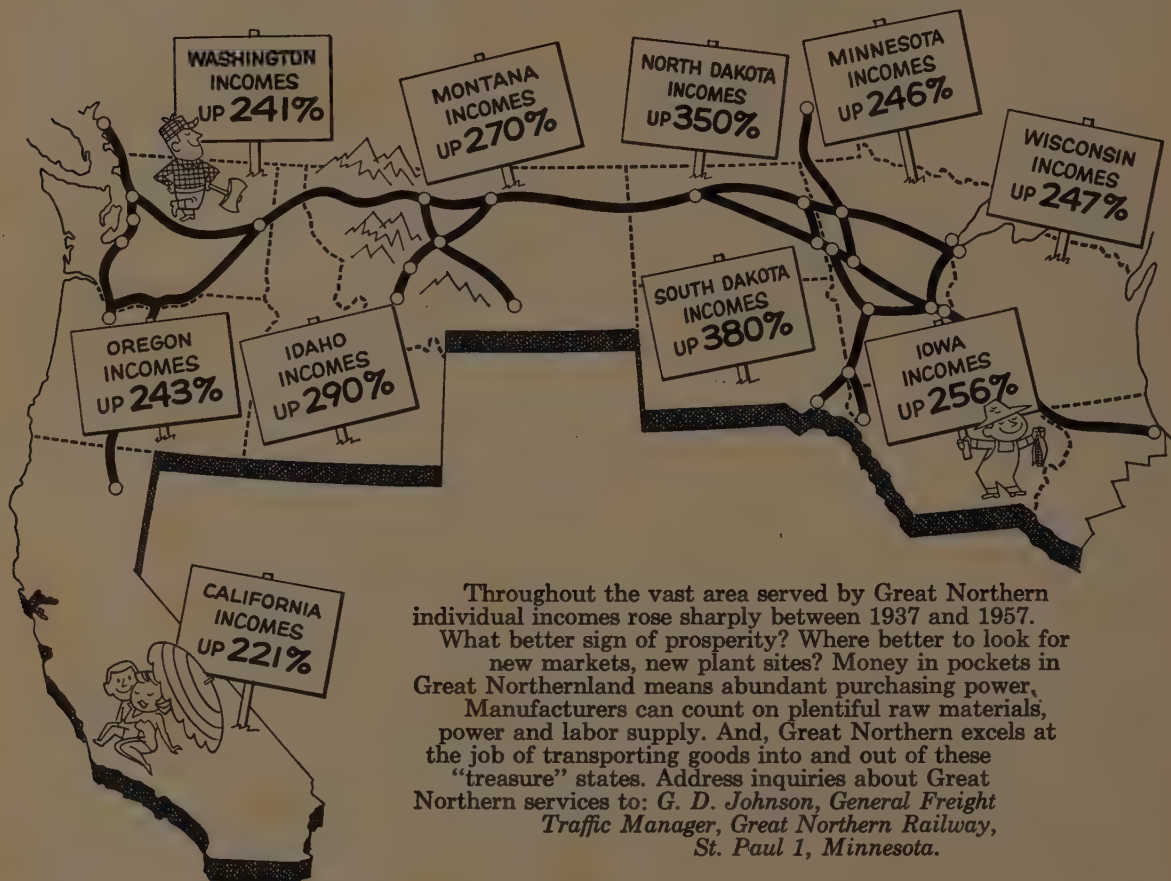
PITTSBURGH, PA.

OWNING AND OPERATING—Great Lakes Steel Corporation • Stran-Steel Corporation • Weirton Steel Company  
The Hanna Furnace Corporation • Hanna Iron Ore Company • National Mines Corporation • Midwest Steel Corporation  
National Steel Products Company • Enamelstrip Corporation



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# Appraisal of General Motors Common Stock

by Nicholas Molodovsky

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THE THEORETICAL INTRINSIC VALUE OF GM for 1959 is estimated in this report at 52. With the stock currently selling around 50, its price is almost in line with value.

However, GM is not the only stock in the market. The advantage of the method used in this study is that it allows setting up comparative tables for an unlimited number of equities, in terms of today's values as well as of values projected into future years. An investor can select the most undervalued stocks for the time range of his planning. And these appraisals are entirely independent from the past or present prices of the stocks in question.

As *The Analysts Journal* is the professional forum for the National Federation of Financial Analysts Societies, it would be improper to use its pages for selling specific stocks. However, we can justify the selection of an equity which is fairly valued by the market for illustrating the practical application of proposed principles of appraisal.

## Introductory Notes

In an address reprinted in *The Commercial and Financial Chronicle* of October 30, 1958, an appraisal of the Dow-Jones Industrial Average was based on a technique of valuation gradually developed through years of work. This DJIA study was begun at the end of July, when the Average had crossed 500. The address was delivered when it stood at 535. It was then a representative opinion that the market had broken loose from traditional moorings of price-to-earnings and yield ratios and was dangerously high. The conclusion that the DJIA was still reasonably priced at that level seemed more daring last October than it does in retrospect now in May.

The methods and techniques used in the DJIA appraisal were described in a 20,000-word article published in the February issue of this *Journal*. Written primarily for professional analysts, it found good response outside their specialized ranks. *Fortune* magazine mentioned the methods and techniques last month in an article on growth stocks.

In April, 1958, a comprehensive valuation report on GM was sent to many analysts with request for comments on the method of appraisal. The stock was then selling at 35.

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*Nicholas Molodovsky has been a customers' broker for more than 25 years. He holds advanced degrees in economics from the University of Paris and from Harvard and has many publications on investment theory and practice to his credit.*

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The author is indebted to Catherine R. May for her collaboration on this study. In particular, she developed the formulae used, made the calculations and drew the charts. To the experts who read and criticized the preliminary text he is also greatly beholden.

The report estimated GM's 1958 theoretical intrinsic value at 45 and recommended purchase. The present study offers a revised version of the original report embodying the criticisms offered. And since, in the meantime, the underlying principles and techniques have been discussed in a separate theoretical study, they can be omitted. By referring to the basic study, "Valuation of Common Stocks," published in *The Analysts Journal* of February, 1959, the reader will find a detailed account of the general economic reasoning and of the valuation techniques used here for appraising GM.

The present study itself should, in turn, serve as a prototype for future appraisals of other stocks. This should make it possible, at the risk of hurting the paper industry, most of whose products seem to get engulfed in the mounting tonnage of financial literature, to give subsequent reports a condensed presentation.

## A New Profession

The growing specialization so evident in medicine, law, engineering, and other professions, is also apparent in financial analysis. No single individual can absorb an adequate store of information about the technologies of all the different industries, the markets for their products, and the characteristics of their respective managements to pass competent judgment on the prospects of all and any individual corporations. Their diversities are so great that sometimes no true knowledge can be acquired beyond a handful of companies.

Considerable professional experience is needed to assemble significant facts from the welter of activities engaged in by a business enterprise, accurately interpreting and adjusting the reported figures of past and current profits, as well as expertly projecting them into the reasonably visible future. A different kind of skill is required for effectively using such facts, interpretations and projections as bases for an appraisal of value. Most of so-called valuations represent mere comparative pricing drawn from prevailing bid-and-asked ranges for similar properties—a borrowing of price tags worn in their lapels by other corporate Joneses. No objective measure of value, independent of going quotations, underlies this approach. Yet independence from the object to be measured is the main requirement of a good standard.

It seems likely that, as time goes on, the delineation between the two professions of corporate analysts and appraisers of stock values will become more sharply defined. Corporation finance and the economic theory of stock values have little in common. Even the practical experience and the educational backgrounds most desirable for efficient functioning in either field are different.



# GENERAL MOTORS CORP.

## Partial Historical Table

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
GM Sales (Millions of \$)	1,667	1,667	1,377	1,795	2,437	2,351	3,796	4,262	3,128	1,963	3,815	4,702	5,701	7,531	7,466	7,549	10,028	9,824	12,443	10,796	10,990	9,522	1,115	1,612	1,812	1,502	1,645	2,513	1,741	1,849	1,115	
GM Pre-tax Net Income (Millions \$)	246	310	626	324	490	490	1,092	1,430	1,253	655	1,555	1,992	2,490	3,258	3,128	3,258	4,262	4,262	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	
GM % Profit Margin *	15.3	12.2	16.6	17.9	20.1	12.8	10.5	10.2	6.8	2.2	11.5	17.1	19.7	24.1	19.9	19.9	16.5	16.8	20.4	16.1	15.0	11.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
GM Passenger Car Sales in U. S. (Thou. units)	1,582	887	1,243	1,706	1,828	2,101	**	**	2,224	817	1,443	1,563	2,202	3,047	2,267	1,781	2,800	2,884	3,978	3,063	2,812	2,180	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
GM % Market Penetration	40.3	43.9	43.0	45.9	48.4	45.3	**	**	35.0	38.0	40.5	40.0	43.0	45.7	42.5	41.2	45.8	51.9	50.2	52.7	46.0	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
GM Net Earnings per share (In \$)	0.73	0.36	0.67	0.72	0.74	0.59	0.54	0.61	0.68	0.29	1.04	1.62	2.44	3.12	1.88	2.08	2.24	3.02	4.26	3.02	2.99	2.22	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
GM Level of Earnings Trend (In \$)	0.50	0.51	0.54	0.59	0.52	0.63	0.63	0.63	0.63	0.62	0.88	1.25	1.75	2.10	2.35	2.60	2.85	3.05	3.15	3.21	3.27	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
GM % Earnings Growth	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
DIVA Net Earnings per share (In \$)	11.49	6.01	9.11	10.92	11.64	9.22	9.74	10.07	10.56	13.63	18.80	23.07	33.54	30.43	26.59	24.76	27.23	28.40	35.78	33.34	36.08	27.85	27.85	27.85	27.85	27.85	27.85	27.85	27.85	27.85	27.85	27.85
% Earnings of DIVA Earnings	8.4	6.0	7.4	8.6	8.4	8.4	5.5	6.1	8.4	2.1	5.5	7.0	10.4	10.3	7.1	8.4	8.2	10.6	11.9	9.1	8.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
GM Book Value (In \$)	2.99	3.10	3.19	3.28	3.48	3.83	4.17	4.28	4.17	4.09	4.63	5.49	6.60	7.71	8.38	9.29	10.03	11.35	14.08	15.13	16.22	16.54	16.54	16.54	16.54	16.54	16.54	16.54	16.54	16.54	16.54	16.54
GM Dividends Per Share (In \$)	0.625	0.25	0.58	0.625	0.625	0.625	0.33	0.50	0.50	0.375	0.50	0.75	1.33	2.00	1.33	1.33	1.33	1.67	2.17	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
GM % Dividend Payout	85.6	69.4	86.8	84.5	84.5	55.9	61.1	82.0	73.5	129.3	48.1	46.3	24.5	24.5	7.7	6.7	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
GM % Dividend Yield (Annual Ave)	7.1	3.8	7.3	7.6	9.4	5.4	3.9	5.0	4.3	3.4	5.1	7.6	13.1	13.8	8.0	7.0	6.5	6.6	5.6	4.4	4.9	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Index of Wholesale Prices	100.	91.1	89.3	91.1	101.2	114.4	119.4	120.5	122.6	140.3	171.8	186.1	176.8	183.8	204.6	198.9	196.3	196.6	197.3	203.7	209.6	212.5	212.5	212.5	212.5	212.5	212.5	212.5	212.5	212.5	212.5	212.5
GM Deflated Earnings per share (In \$)	.73	.40	.75	.79	.73	.52	.45	.51	.55	.21	.61	.87	1.38	1.70	.92	1.05	1.14	1.54	2.16	1.48	1.43	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
GM Deflated Book Value (In \$)	2.99	3.40	3.57	3.60	3.44	3.35	3.49	3.55	3.40	2.92	2.69	2.95	3.73	4.19	4.10	4.67	5.11	5.77	7.44	7.43	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74

\* Based on total net income before taxes. Because of the diversified activities and investments of various companies this ratio places them on a more comparable basis than would a ratio based on operating profit.

\*\* No cars produced from 2/10/42 to 9/29/45 due to war requirements. There were 708 sales in 1943 and 79 in 1944 of cars produced prior to 2/10/42.

\*\*\* Average annual rate of growth of Earnings Trend line.

\*\*\*\* Wholesale Price Index for all commodities published by Dept. of Labor. Bureau of Labor Statistics (1947-49 = 100) adjusted as to base year 1937 = 100.

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\*\*\* Average annual rate of growth of Earnings Trend line.

\*\*\*\* Wholesale Price Index for All Commodities published by Dept. of Labor, Bureau of Labor Statistics (1947-49 = 100) adjusted as to base year 1937 = 100.

## Valuation Data

Compiled in the accompanying Historical Table, for 1937-58, are only such data as are relevant to valuation. All descriptive information, unless some of it happens to be mentioned in the course of the discussion, is omitted from this report. The readers are assumed to be familiar with the company's capitalization and affairs and to have access to complete and up-to-date material concerning its industrial and financial operations and results.

The record of the last 22 years shown on the Historical Table provides much useful information. We shall discuss it in its several different aspects. But in order to carry forward the data which it offers we shall try to extend it as far into the future as sensible projection can be made.

## Projections of GM Earnings

No valuation job can be accomplished—nor even undertaken—without a look into the future, unknown as it may be. A commercial property offering no promise of future income would be worthless.

While preparing this report, we have scanned figures and opinions given by statistical services and brokerage firms. We have also consulted many analysts specializing in the automobile industry as well as institutional research departments. With characteristic prudence, most of them declined to commit themselves to estimates of earnings beyond 1960 or even 1959. For the more distant future, the majority of experts limited themselves to indications of the probable

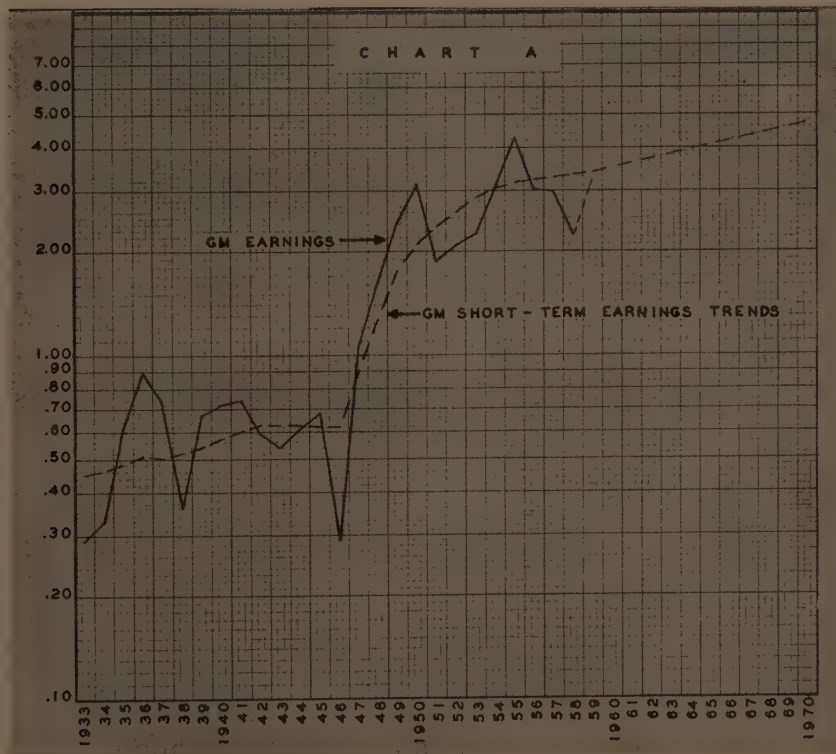
highs and lows of per share earnings at cyclical peaks and troughs.

With few exceptions, the estimates cluster within a relatively narrow range. Disregarding the extremes, they may be graphically summarized by an extension of the trend line of earnings as shown on Chart A.

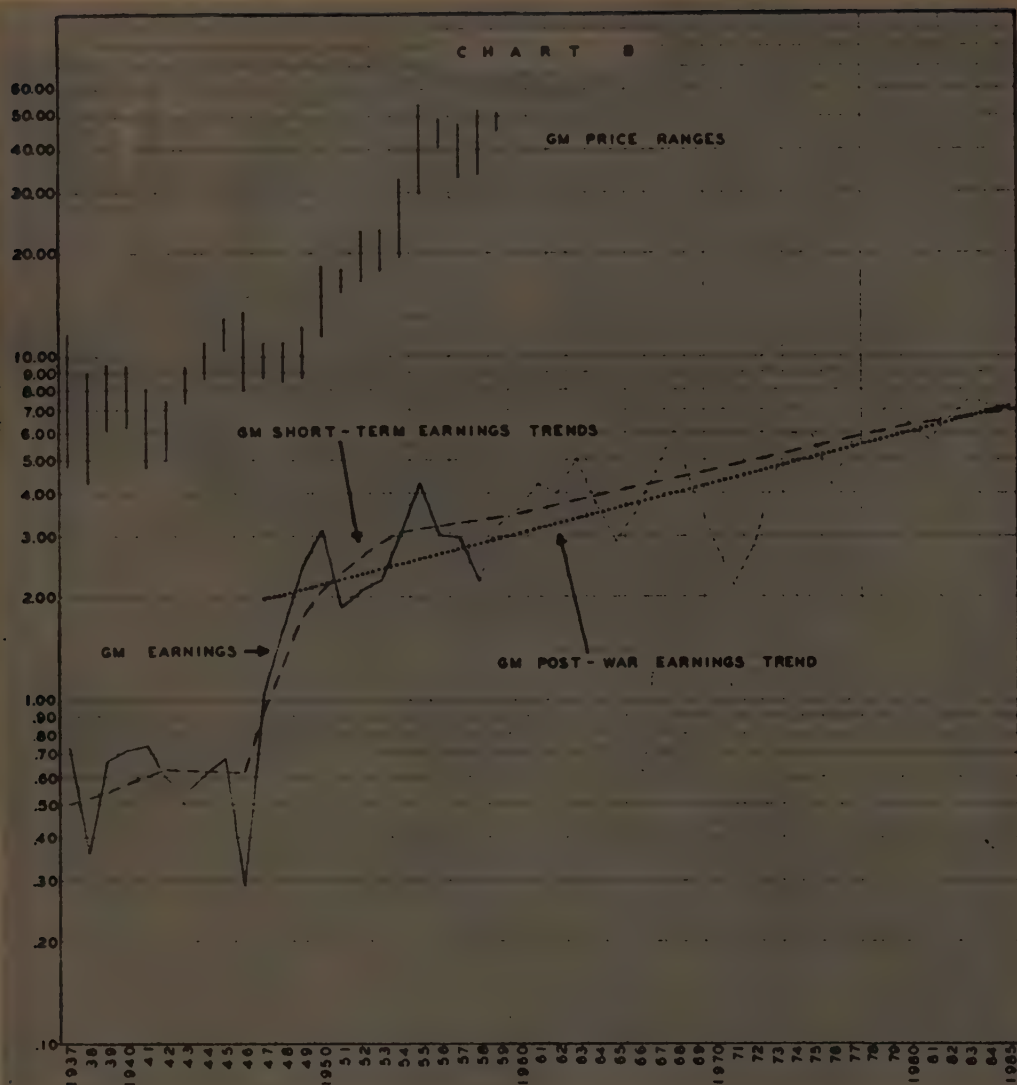
## A Map of the Future

The expression forming this sub-title was borrowed from Vahe Kenadjian of Chase-Manhattan research. The idea itself has been used by the author in practical valuation work and published articles. Figure 3 in *The Commercial and Financial Chronicle* of October 30, 1958, applies it to a projection of actual annual DJIA earnings per share through 1974. It is hardly necessary to add that such a projection was not meant as a forecast. It endeavored to measure the impact of possible future cyclical fluctuations of DJIA earnings on their long-term trend line. It tried to find out the severity of future recessions that could be absorbed while leaving the secular trend line undisturbed in its progress. It established the fact that if during the next 16 years two deep cyclical contractions took place in DJIA earnings, lasting from two to three years—with declines ranging from 50% to 60%—the long-term trend line, rising at 4% per annum, would be left intact.

Figure 3, published in *The Chronicle* of October 30, had been actually prepared much earlier that month. Evidence was then only beginning to accumulate that a new business expansion was under way. Accordingly, the contours of







the earnings projections for 1959 and 1960 were very conservatively drawn. They have now to be adjusted upward. The effect of these small changes on the secular trend line of the Average's earnings is negligible.

In the center of the Historical Table of valuation data, two lines show the Average's earnings as well as those of GM expressed as percentages of DJIA. Taking into account the differentials in their percentage relationships during various phases of business cycles, and adjusting *The Chronicle* Figure 3 as suggested in the preceding paragraph, Chart B transposes it in terms of GM data. In order to have this "map of the future" encompass a full long-term post-war economic cycle of the Kondratieff type, it was extended through 1985. A trend line fitted into the fluctuations of economic data over so many years becomes capable

of adequately summarizing the varying contingencies of several shorter cycles.

Despite the great length of this period, the projections of annual GM earnings on Chart B are economically plausible. It should be stressed that they are purely hypothetical. They are used as a check on the reasonableness of the short-term trend line projected on Chart A.

It was in order to make a significant test that the projection of the Chart A trend line and the estimates of actual future GM earnings on Chart B were derived from separate and independent sources. It will be recalled that the projected line on Chart A represents a composite view of the experts. And the projected earnings on Chart B were secured from estimates of DJIA earnings which had been mathematically balanced out around the Average's secular

trend line. It seems safe to say that none of these projections were inspired by a flight of pure imagination or poetic vision. They are thoroughly earth-bound and practically iron-clad.

It may be seen how well they fit into each other when the short-term trend line of Chart A is drawn through the projected annual GM earnings of Chart B. It is also significant that the long-term trend line, which has its inception in 1947 at a much lower point of the earnings curve, has an annual growth rate of 3.4%, as against the 3% of the short-term trend line starting in 1959.

Our excursion into the mysterious kingdom of the future confirms the reasonableness of the experts' projections summarized on Chart A. The two independent trend lines cross in 1983. We shall let the trend line of Chart A continue its 3% cumulative progress until that time. Beyond, we shall extend it indefinitely at our accepted rate of ignorance, 2%. As explained in previous studies, we can derive from it theoretical dividends and discount the latter at 7%. Both rates are abundantly documented in "Valuation of Common Stocks," *The Analysts Journal*, February, 1959.

The contours of hypothetical future annual GM earnings draw on Chart B a rather sharp profile. The cyclical swings are violent, especially after 1965. To correct this possible defect, another model of conceivable future business fluctuations was set up. It was governed by the thought that structural changes in the economy, brought about during the last two decades by natural forces and by governmental action, are likely to result in shallower business cycles. Also it was assumed that the monetary policy of the Federal Reserve Board would shorten the duration of both expansions and contractions. Compensating each other in depth and in time, these changes had little effect on the long-term trend line.

#### *Theoretical Intrinsic Value*

GM earnings trend line is projected on Chart A at an annual rate of 3% beginning 1959. Its extension at that rate through 1983, followed by an indefinite annual 2% growth, produces the following appraisals of the theoretical intrinsic value of General Motors common stock:

	1959	1960	1965	1970
Estimated Level of Earnings				
Trend .....	\$3.40	\$3.50	\$4.05	\$4.70
Theoretical Intrinsic Value..	52	53	61	69
% Current Price (50) of				
Theoretical Value .....	96%	94%	82%	72%

#### *Significance of Present Price*

The above table of intrinsic values was computed by projecting earnings. Investors who are unwilling to make any projections could use such tables, so to speak, in reverse.

In the case of GM, its present price of approximately 50 stands so close to its intrinsic values of 1959 and 1960 as to indicate that it capitalizes the above earnings projections. But when this stock was selling considerably lower, it was possible to use this method of appraisal for showing that it was then capitalizing earnings substantially below the estimates made by competent analysts. Such a finding would have established a case of undervaluation.

In this manner our valuation equation can work both

ways. When it is applied to determine the significance of present price, it can answer the question whether the demands on the future that are implicit in current quotations are reasonable and acceptable.

#### GENERAL COMMENTS

The sudden explosion of GM earnings after the end of World War II gave them a fabulous lift of about a thousand percentage points. The projection of the trend line of future earnings on Chart A has its lowest point anchored at \$3.40 per share. As may be seen on the same chart, sixty cents was a pretty high level for the trend line prior to 1946.

Since we share the analysts' views about GM's future earnings, we did not question them in our appraisals. But some of our readers may have serious doubts in this respect. Before the war, an earnings trend line drawn at the level of one dollar per GM share would have looked like a lofty historical plateau. It would call for a theoretical value of 14. We should probably try to produce some rather substantial evidence that we truly stand at a point of no return.

#### *GM in Financial Literature*

Less than 10 years ago, some of the ablest and most successful analysts could not see GM's intrinsic value much above 12, in terms of the present, twice split, stock. Though the violent upward breakout of GM earnings had already taken place, it did not seem convincing. A conservative observer was prone to ascribe it to a temporary bulge of pent-up demand. The experts could not forget that during the preceding quarter century GM common seemed to have had a value of between 8 and 10. To pay much above the latter figure had proved unwise. However, by taking into account the probable fact that average earnings and values after World War II would be appreciably higher than before, these writers were willing to stretch GM's intrinsic value to 12.

Nor did this attitude undergo any great change as the passing years heaped record upon record. Reluctantly the analysts admitted that the former estimates and norms were being outlived. But each new rise seemed to make it only more probable that it was high time for the cycle to turn downward. This feeling of financial writers was shared in the opinions published by prominent statistical services. In March, 1949, they thought that GM earnings for that year would not differ materially from the \$1.62 of 1948. By August, they realized that a new peak was coming and forecast earnings of about \$1.80 on the present adjusted basis. Earnings reached \$2.44. In 1950, GM net rose to \$3.12 per share. But a few weeks before the close of 1949, statistical organizations were advising that keener competition pointed to a decline in the following year. Not until June did they foresee a "small" gain, while in fact a rise of 28% was realized. In May, 1951, they expected earnings to fall sharply; by August they forecast 92c a share. The actual figure turned out to be \$1.88.

The forecasts of the years that followed lost nothing of their prophetic touch. But the advisory services began to acquire the habit of thinking of probable increases in GM annual sales in billions. Their new boldness was still being outdistanced by events. In May, 1953, they were estimating that sales would make another billion dollar jump to \$8,500



million and that, generally, the annual sales in the mid 1950's would average \$8 billion. Our Historical Table shows that sales in 1953, 1954 and 1955 were respectively, in millions, \$10,028, \$9,824, and \$12,443.

### *The Mountain's Top*

By the time this astounding tidal wave was approaching its crest, investment services and financial writers started to rationalize the phenomenon. The outlandish creature began to be caressed as a domestic pet. Its further healthy growth was being freely predicted. Many happy returns were yet to come of larger and larger sales.

Motor stocks were being welcomed to the rapidly increasing family of growth equities. Not only were their earnings, subject to mild interruptions, to continue to grow, but the stock market was likely to capitalize them in the future with more and more generous multipliers.

To account for what had already taken place, and why it was offering such a brilliant promise for the future, persuasive reasons were suddenly not lacking. Two factors seemed to stand out: the automobile had ceased to be a toy of the rich and had become a necessity for the masses; and this collective buyer could afford many more cars because of a wider spread of purchasing power and availability of credit.

These reasons, however, were not actually new. Henry Ford seems to have noticed that the motor car had poten-

tialities as a mass product. Proving his point, he had acquired a certain fame and some financial well being. As to the industry's ability to make good use of consumer credit, GM had commissioned, as long as 30 years ago, a famous economist to write a treatise on the subject. The two volumes produced by the professor and his assistants were presented with fanfare at a gala dinner.

Even more subtle reasons of a psychological nature, such as the power of obsolescence to set off resonant vibrations of human instincts, and the significance of the automobile as a symbol of economic victory and personal freedom, could not have been summarized more eloquently than was done 20 years ago by Mead and Grodinsky, discussing the nature of demand for consumers' goods in *Ebb and Flow of Investment Values*.

### *Economics of the Automobile Industry*

This stout rearguard action, stubbornly refusing to accept the probability of any significant further rise of GM earnings during most of the time it was taking place, but enthusiastically proclaiming that an era of growth had finally arrived when it was apparently completed, was caused by a quantitative phenomenon. The nature and the sources of demand were known and understood. But under conditions of a free economy, it is difficult to measure in advance its collective size, particularly during periods of

(Continued on Page 107)

## *Portrait of a family with a future!*



Fact is, there's a bright future for two Michigan families. . . . The Donald R. Kalso family joined the Detroit Edison family of stockholders as its 100,000th member. For the Kalsos, it is an important venture into stock ownership. For Detroit Edison, it is evidence of the continued strong support from its owners.

Before the Kalsos made their decision, they took a careful look at their future investment. They tell us they liked what they saw, for it represented to them a sound company with an almost unlimited growth potential. Detroit Edison's electrical system now has a capacity of nearly 3.5 million kilowatts and serves a million and a quarter customers. Plant investment is over \$1.1 billion.

The dividend record looked good, too. Detroit Edison has paid 199 consecutive quarterly dividends. In 1958

over \$25 million was paid to shareholders at \$2.00 per share. This is only part of the progress story. For the entire family of stockholders and the company, each new chapter brings greater opportunity to grow and prosper along with the area Detroit Edison serves in Southeastern Michigan. The whole story is told in the Annual Report. It makes good reading. For a copy write—

THE TREASURER

**THE DETROIT EDISON COMPANY**

DETROIT 26, MICHIGAN

*Serving 4,300,000 people in Southeastern Michigan*

# TEXACO REPORTS FOR 1958

## HIGHLIGHTS

### FINANCIAL

	1958	1957
Gross income .....	\$2,475,629,730	\$2,449,162,410
Net income .....	\$ 310,167,805	\$ 332,303,644
Per share outstanding at end of each year	\$5.31	\$5.94
Number of shares out- standing—end of year	58,388,074	55,937,434
Cash dividends .....	\$ 134,769,229	\$ 128,906,925*
Per share .....	\$2.35	\$2.35*
Total assets .....	\$3,111,526,969	\$2,789,094,629
Equity in total assets of nonsubsidiary com- panies and subsidi- aries not consolidated	890,000,000	901,000,000
Total .....	\$4,001,526,969	\$3,690,094,629
Capital and exploratory expenditures .....	\$ 514,534,733	\$ 481,708,331

\*In addition, a 2% stock dividend was paid in 1957.

### \*\*OPERATING • Barrels per day

	1958	1957
Gross crude oil produced:		
Western Hemisphere .....	647,477	617,519
Eastern Hemisphere .....	453,249	435,536
Total world-wide .....	1,100,726	1,053,055
Refinery crude oil runs:		
Western Hemisphere .....	849,533	794,607
Eastern Hemisphere .....	275,147	268,990
Total world-wide .....	1,124,680	1,063,597
Petroleum product sales:		
Western Hemisphere .....	839,806	735,098
Eastern Hemisphere .....	325,860	320,510
Total world-wide .....	1,165,666	1,055,608

\*\*These statistics include 100% of the operations of subsidiary companies and the Company's equity interest in the operations of companies owned 50% or less.

## CONSOLIDATED BALANCE SHEET—DECEMBER 31

ASSETS		LIABILITIES AND STOCKHOLDERS' EQUITY	
	1958	1957†	
Current Assets:			Current Liabilities .....
Cash and securities .....	\$ 393,931,287	\$ 289,866,336	Long-Term Debt .....
Accounts and notes re- ceivable .....	321,250,407	279,599,475	Reserves for Employees'
Inventories .....	314,283,555	374,628,488	Plans .....
Total .....	\$1,029,465,249	\$ 944,094,299	Minority Interest .....
Investments and Ad- vances .....	171,252,856	180,648,163	Stockholders' Equity:
Properties, Plant, and Equipment:			Par value of capital
Gross .....	3,708,388,309	3,189,622,656	stock issued—shares
Less — Depreciation, depletion, and amor- tization .....	1,873,935,133	1,599,537,399	\$25 each .....
Net .....	\$1,834,453,176	\$1,590,085,257	Capital surplus .....
Deferred Charges .....	76,355,688	74,266,910	Retained earnings .....
	\$3,111,526,969	\$2,789,094,629	
			Less — Capital stock
			held in treasury .....
			Total .....

†Reclassified for comparative purposes

## CONSOLIDATED INCOME STATEMENT

	1958	1957
Gross Income:		
Sales and services .....	\$2,327,938,837	\$2,344,176,856
Dividends, interest, and other income .....	147,690,893	104,985,554
	\$2,475,629,730	\$2,449,162,410
Deductions:		
Costs, operating, selling, and general ex- penses .....	1,766,602,778	1,684,072,902
Taxes (other than income) .....	74,909,704	69,845,086
Dry hole costs .....	34,185,442	45,428,145
Depreciation, depletion, and amortization .....	233,044,710	216,176,860
Interest charges .....	12,066,997	12,512,084
Provision for income taxes .....	41,300,000	83,900,000
Minority interest .....	3,352,294	4,923,689
	\$2,165,461,925	\$2,116,858,766
Net income .....	\$ 310,167,805	\$ 332,303,644

Copies of the Annual Report are available upon request to the Secretary, The Texas Company, 135 East 42nd Street, New York 17, N. Y.



# TEXACO

...CONSTANT PROGRESS  
IN OIL'S FIRST CENTURY



*A Famous Name Since 1877*

# DREWRY'S

LIMITED U.S.A., INC.  
BREWERS OF WORLD'S FINEST ALE AND BEER

*Reports for 1958*

## COMPARATIVE HIGHLIGHTS

	1958	1957
Barrels sold .....	1,520,774	1,368,712
Net Sales after Excise Taxes .....	\$29,007,111	\$26,245,280
Income before Taxes .....	3,411,384	2,910,965
Net Income .....	1,661,384	1,410,965
Working Capital .....	3,456,539	3,068,868
Shareholders' Equity .....	11,161,304	10,468,395
Earnings per Common Share .....	2.74	2.33
Dividends per Common Share .....	1.60	1.60
Book Value per Common Share .....	18.44	17.29

OUR 1958 ANNUAL REPORT, detailing the results of our operations during the year, is available on request to the Company, or our financial public relations counsel, Gartley & Associates, Inc., 68 William Street, New York 5, New York.

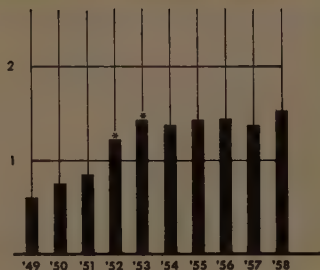
**DREWRY'S**



### BARREL SALES

In millions of barrels

\*Expansion Program



Drewry's marketing territory covers Indiana, northern Illinois, northwestern Ohio, Michigan, southern Wisconsin and Iowa. It is an area which is densely populated and highly industrialized. It provides a natural market for our products, within economic shipping distance from our South Bend and Chicago plants.



# High Finance in Cocoa

by Frank Alexander Close

COCOA IS A HIGHLY-SPECULATIVE COMMODITY.

And just because anyone can buy this product in its many "domesticated" forms, nobody should fool himself into thinking that he can buy or sell this product in its raw form to make a profit. There are times, in this market, when even angels fear to trade.

But for a moment let's think of this commodity in its many common forms. Count the confectioners, newstands, drug stores, grocery stores, malt shops, luncheonettes, restaurants, and theatre and hotel lobbies which sell chocolate bars in many colors and shapes. They must number in the hundreds of thousands; and this is only a part of the interesting and profitable cocoa story. Hot chocolate, breakfast cocoa, chocolate milk, ice cream, syrup, life savers, straws, low and high-priced chocolates—as well as the tremendous use of this product in the bakery trade—identifies it as a very basic and important import.

It all comes from the cocoa bean which is the fermented seed of the cocoa pod growing out of the trunk and arms of a squat sturdy tree, Theobroma (food for the Gods) Cacao, that flourishes only in the hot humid areas of the world—roughly within 20° North or South of the equator. There is, therefore, no cocoa grown in the United States or in any of its possessions.

The collection and preparation of the bean is an art that has changed very little since cocoa first emerged as a world commodity slightly over 100 years ago. The pod resembles a cucumber or small squash. These are clipped off the trees at harvest time, cut in half and the seeds (cocoa beans) are scooped out along with the mass of cellular tissue in which they lie. They are then placed in the sun to ferment for several days. During this fermentation period the wet mass surrounding the beans drains off, and at the same time a chemical change takes place which creates the distinctive bitter taste of unsweetened chocolate, and turns the beans to a dark brown. Slightly larger than a regular almond and nut-like in appearance, they are then graded and packed in bags for shipment to world markets. This is the cocoa that is traded on the New York Cocoa Exchange.

Cocoa was first introduced as a delicacy in Spain about the 16th Century (long before it became a world commodity), although it was well known to the natives of South and Central America where the tree is indigenous. The Spanish Conquistadores reported back to the Spanish monarch of their day that a drink of cocoa provided enough sustenance for a soldier to march a whole day.

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F. A. Close is founder of the Frank Alexander Close & Co., established in 1950 as commodity brokers and commission merchants. His experience in cocoa has been varied, including visits to cocoa-producing countries. In addition to speculation in cocoa futures, he is a director of Sparrow & Meins Chocolate Co., Inc., of Boston. Mr. Close has a wide experience in numerous other imported commodities.

The Spanish Court held its recipe for cocoa as a closely-guarded secret for 100 years; but by the 17th Century an expensive chocolate beverage made of sugar, vanilla and grated cocoa became popular among wealthy Europeans. In the 18th Century, crude home-made sausage-shaped chocolate bars were sold by travelling peddlers in Europe at prices that could be afforded by the general public. It was not until well into the 19th Century, however, that anyone thought of adding more cocoa butter to the old recipe to make a chocolate that would (as the present-day advertising men say) "melt in your mouth." In the 1870's, milk was first added to make a milk chocolate bar.

The manufacturing of cocoa beans into chocolate and other cocoa products commences with roasting, then crushing, during which time the thin skin is removed. The resulting nibs are ground until liquefied. This is known as chocolate liquor. Sugar and cocoa butter are then added and the mixture is placed in a machine that beats the chocolate, at a high temperature, until each crystal is coated with cocoa butter. A further heating process precedes the moulding of chocolate into bars which are then wrapped and shipped.

Chocolate is, for the most part, made in the consuming countries where the base grades (Africans and Bahias mainly) can be blended with flavor grades from other areas to give whatever result the chocolate manufacturer wants. The different formulas for these blends are kept locked in the manufacturer's vaults; and this explains the distinctive flavors and colors of the various brands we enjoy.

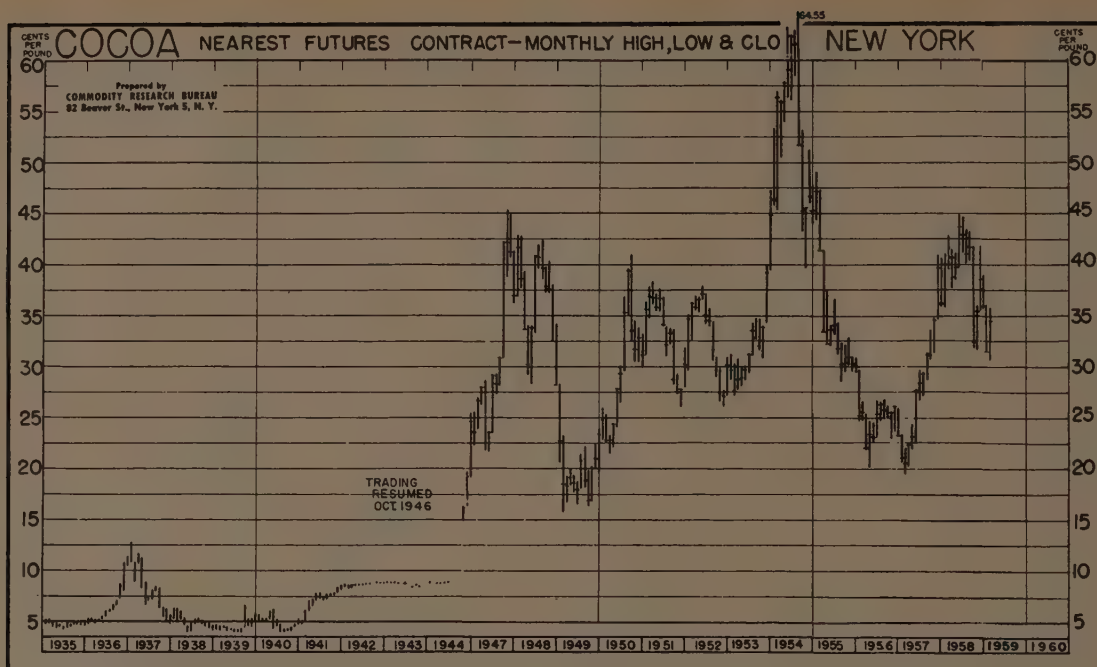
The African crop, produced principally in Ghana (formerly the Gold Coast) and Nigeria on the West Coast of Africa, accounts for more than one-half of the world's supply. Another one-quarter comes from the state of Bahia in Brazil, and the balance from a number of countries bordering the equator—within the 20° belt mentioned above. Soil, climate and care in cultivation affect the flavor, and many of these smaller productions are classed as flavor grades and command a premium price.

Almost 90% of the world's cocoa goes to Europe and the United States, and of this 90%, Europe buys about 60% and the United States about 40%, leaving a tremendous untapped market in the rest of the world.

## PRICES SENSITIVE TO YIELDS

In common with most products of the soil, cocoa prices are very sensitive to poor and abundant crop yields. Excessive rain, drought and pod rot, plus the long time lapse between harvest abroad and the sale of chocolate products, add extra risks to the marketing of cocoa and are reflected in the tremendous variations of price on the New York Cocoa Exchange where in recent years a high of 64c and a





low of 20c per pound marked the extreme limits for cocoa futures.

Growers and exporters abroad have the common interest of getting as high a price as possible for each crop, and they run a very serious market risk between the end of the last crop and the time when the new crop is ready for sale. In theory, the New York Cocoa Exchange, and the terminal markets in London and Amsterdam, offer the same opportunity to hedge this risk as is offered to the merchants and manufacturers. In practice, their participation in future trading is very small. In the two largest growing areas, namely, Ghana and the state of Bahia, Brazil, the economy of the area is geared to cocoa and cocoa alone. The manager of the National City Bank at Bahia, in discussion with the writer on a recent visit which he made to that city, estimated that 90% of the business done in the area was cocoa; and in the new State of Ghana it represents an even larger percentage of the total earning power. These areas take as big a market risk as any other section of the trade, but they are obviously the poorest equipped to take that risk.

#### HEAD-LOAD PRICE FIXED

A year when prices are at a low level means black depression for virtually the entire population of the area and certain steps have been taken in these areas which should be noted. On the West Coast of Africa the Ghana and Nigerian crops have, for some years, been marketed entirely through Central British Marketing companies. These companies fixed a head-load price for cocoa which, while somewhat flexible, nevertheless assured the grower a reasonable return for his product. This marketing arrangement worked successfully. Profits, when the world price exceeds the purchase price, are plowed back to Nigeria and Ghana in

the form of public works and improvements; and when Ghana attained independence, cocoa growers continued to sell their crop through the British Marketing Company—and still do up to this writing.

About two years ago, when prices on the New York Cocoa Exchange reached a low of very nearly 20c a pound, the Brazilian government set up a similar marketing arrangement by declaring a fixed price below which no export license for cocoa would be issued. At the same time the Government guaranteed to buy all cocoa produced at the export floor price from the local exporters whom they wished to continue in business. This contributed to a rise in the world market price which began shortly after the inception of this program. The Brazilian government's floor price has been flexible over the past two years and is usually higher than world market prices.

Brazil has made a substantial cruzeiro profit because it pays for the cocoa in cruzeiros at a price equivalent to the floor price in dollars, but at the official rate of exchange. Brazil can then sell the dollars which it earns when reselling the cocoa abroad at the unofficial cruzeiro value. The difference is estimated at 60 to 100 cruzeiros to the dollar over the official rate. The smaller crops such as those from Venezuela, Colombia, Ecuador, and certain African areas, are marketed through exporters with little, if any, control.

#### COCOA EXCHANGE 34 YEARS OLD

The New York Cocoa Exchange was established in 1925 to provide a place where those engaged in this trade could hedge purchases and sales with a view to affording some protection against market fluctuations.

Unlike many other exchanges, cocoa is the *only* commodity traded on the New York Cocoa Exchange. There

are, at present, 188 seats on the Cocoa Exchange and the last price paid for a seat was \$12,500. Each contract is for 30,000 pounds and may be bought or sold for any future month during the next year. The principal trading months are those common to most commodities, namely: March, May, July, September and December.

The cocoa contract is broad in the sense that any crop from any part of the world can be delivered on the Exchange—the major base grades at the price actually sold, and other grades at a fixed premium or discount to that price as the case may be. From this it can be seen that the buyer who takes delivery of physical cocoa has no control over the grade and may be forced to accept a grade that is less in demand and, therefore, more difficult to sell. The premiums and discounts fixed by the exchange are not necessarily those that apply in the open market on the day that the cocoa is delivered for a future contract.

The Board of Managers of the Exchange has established a one-cent-a-pound limit for daily price movements which applies to all months except the spot delivery month on which there is no limit. The need for this control is well illustrated by quoting from an article that appeared a few years ago in the New York Times. (Only a clipping is available and, therefore, the exact date cannot be given.)

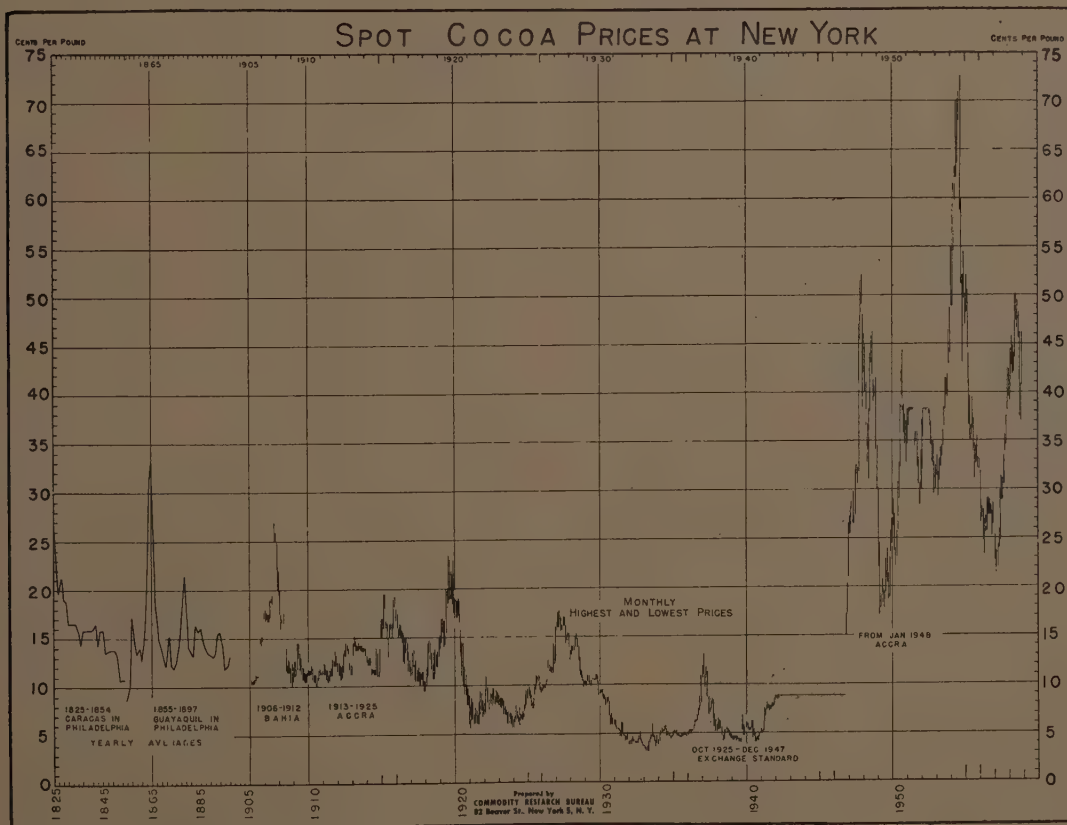
"Trading on the exchange has been erratic throughout the year. The Board of Managers of the Exchange has est-

ablished a one-cent-a-pound limit for daily price movements. On 111 of the 210 trading days this year prices moved up and down the limit. Limit rises were registered on 59 days and declines on 52 days. The limit price movements have not been consistently up or down. During the first 18 trading days of the year, prices moved up the limit 10 times and down seven. During the 18 trading days from May 13 to June 8, prices rose the limit eight times and fell the limit eight."

While it may appear at first glance that the one-cent-a-pound limit provides some protection to the speculator, the reverse may in fact be his experience. Stop-loss orders can only be executed when there is a bid for every offer and an offer for every bid, but once the market has reached the trading limit, all orders accumulate in the order in which they are received and may have to await another trading day, or even another two or three, with a possible loss of an additional cent for each trading day before bid and asked prices are again established.

#### NEW YORK IS THE 'HUB'

A group of import merchants located in New York City finance the bulk of our cocoa imports which are paid for at time of shipment from abroad. The merchant absorbs the risks of quality, delivery and market fluctuations and is the principal source from whom the manufacturers of chocolate





products purchase the raw cocoa bean. Stocks are maintained in warehouses at various port cities, principally New York, so that there is a smooth and constant flow of beans of virtually every grade to the manufacturer.

This is an extremely fast-moving business that requires the full attention of experienced traders and many merchant houses have several such men who work together, one of whom may be on the floor of the Exchange and the other in the office. These men combine the spirit and pluck of the gambler, with a conservatism imposed on them by the limit of their financial resources, and the hard-trading lessons that they have learned. They must be in moment-to-moment touch with all the principal foreign markets around the world, with developments on the floor of the Cocoa Exchange where they hedge their purchases, and with the needs of their customers, the manufacturers.

It is impossible to tell exactly to what extent the manufacturers use the futures market as a hedge, either against their purchases or against sales of manufactured chocolate products, but it is safe to say that it is in fairly frequent use for this purpose. They are also in touch with the primary markets where cocoa is grown, and occasionally they will buy abroad in direct competition with the merchant. In general, however, they support the local import merchant who provides the constant stock of nearby cocoa which is their life's blood.

A third and very important group trading on the New York Cocoa Exchange, are the speculators interested in cocoa futures, and these range from the professional trader to every class of citizen all over the country who may from time to time take a "flyer" on cocoa. Never before, in fact, has there been so much interest in cocoa futures as has been shown by the general public in recent years. In 1958 the volume of sales reached about twice the world's cocoa production for that year, despite the existence of two other exchanges actively trading this commodity, one in London and the other in Amsterdam.

This interest, of course, is not constant nor can it be measured accurately since the orders to buy or sell move through the hands of the large brokerage houses which also frequently handle hedge orders for manufacturers and merchants. The volume of trading in 1958 suggests that the present speculative interest in futures is at least as large as that of the cocoa trade, and when speculators tend to have a one-sided view of the market their buying or selling power can determine the price movement of the moment. A speculative interest is essential to the proper operation of a futures market since this provides the buy and sell orders against which the trade can hedge; but this can be a mixed blessing to the trade.

#### NO 'ROYAL ROAD' TO WEALTH

Very few speculators can take the time to get the information necessary to make a complete judgment of all the factors which may be influencing the market. This is in fact one of the principal problems of the manufacturer and cocoa merchant who spend much of their time working toward this end. The writer's own personal experience as a cocoa futures speculator leads him to the conclusion that this is far from an easy way to wealth. Nevertheless, once

or twice a year prices tend to over-extend themselves on the high or low side, so that a future price correction is indicated and may offer opportunities for speculative profit. Naturally, these opportunities are also watched very carefully by cocoa merchants—who would just as soon make money on futures as on actuals.

A study of the commission rates shown in the accompanying table will reveal that Clearing Members, and those owning a seat on the New York Exchange, have a considerable trading advantage over the non-member who, at cur-

Minimum rates of commission and floor brokerage per contract of 30,000 pounds of Cocoa Beans for residents of the United States or Canada:

#### For Buying and Selling Combined

	Member Rates	Non-Member Rates Domestic	Floor Brokerage for Buying and Selling
Below 10c	\$17.50	\$35.00	\$2.00
10c up to 14.99	20.00	40.00	2.50
15c up to 24.99	25.00	50.00	3.00
25c up to 34.99	30.00	60.00	3.00
35c and above	35.00	70.00	3.00

(Note that the floor brokerage is included in the member and non-member rates shown above.)

The rate for buying or selling is one-half the combined buying and selling rate.

Domestic rates for buying and selling the same contract on the same day are one-half the combined rate.

Non-residents of the United States and Canada must pay a surcharge of \$5.00 per contract of 30,000 lbs.

Clearing members pay only the floor brokerage plus small contract and clearing fees. Most of the large merchant houses and some of the manufacturers are clearing members.

rent prices, starts with a 60 point (\$180.00) brokerage before making any profit.

It should be plainly understood here that speculators run no quality or delivery risks since all physical cocoa tendered on the Exchange must first be placed in local warehouses approved by the Exchange and must pass a rigid examination by Exchange Inspectors to guarantee that the grades are up to the quality standards provided for the crop from which it comes. As long as the speculator everts out his position before the first delivery day, he runs no risk of having to take possession of physical cocoa and can trade in futures within the margins prescribed by the Exchange. These margins are presently \$1,200 at time of purchase or sale of one contract, and margin calls go out for \$300 for each one cent fluctuation registered against the speculator's position.

At the time of this writing, cocoa market prices appear to be in fairly even balance between bearish and bullish forces. The African crop is well sold out so that there is no pressure to sell from that quarter. The stocks of cocoa in New York warehouses, while very much lower than in recent years, are still adequate for immediate needs and are strongly held. Grinding figures, which are carefully studied by all those interested in cocoa prices (because they show the consumption trend), are not available for the first quar-

Annual Report | 1958



W. R. GRACE & CO.

# W. R. GRACE & CO. REPORTS ON 1958

W. R. Grace & Co. reported net earnings per share of \$2.07 for 1958, compared to \$3.31 for 1957. Lower profits from our operations in Latin America and from Grace Line were partially offset by higher earnings of the Company's growing chemical business. For the first time since the Company entered the chemical industry in 1952, earnings from our chemical divisions amounted to more than half of the total net profits.

For 1959 the prospect for most of the Company's businesses in the United States and in Latin America is more favorable than a year ago. Stronger demand for the Company's chemical products and the improved business climate both in the United States and in Latin America indicate that Grace's earnings should improve in 1959.

Results to date this year confirm this feeling of optimism.

For a detailed account of the Company's operations in 1958, write today for your free copy of the new Annual Report.

## Highlights of the Year's Operations

Year Ended  
December 31, 1958

	1958	1957
Sales and Operating Revenues.....	\$434,234,391	\$459,727,553
Net Income After Taxes.....	\$ 10,039,855	\$ 15,459,247
Per Share of Common Stock.....	\$ 2.07	\$ 3.31
Cash flow per share.....	\$ 7.51	\$ 8.29
Preferred Dividends Paid.....	\$ 928,664	\$ 928,664
Common Dividends Paid.....	\$ 9,692,815	\$ 10,540,586
Per Share—at rate of.....	\$ 2.20	\$ 2.40
Net Working Capital.....	\$130,295,418	\$120,631,720
Current Ratio.....	2.7 to 1	2.5 to 1
Net Fixed Assets.....	\$221,931,925	\$207,546,424
Stockholders' Equity per Common Share.....	\$ 47.44	\$ 47.70
Number of Common Stockholders.....	28,052	24,539
Number of Employees.....	38,400	42,100

**W. R. GRACE & CO.**

Executive Offices: 7 Hanover Square, New York 5



CHEMICALS • LATIN AMERICAN ENTERPRISES • OCEAN TRANSPORTATION



ter, but it is estimated that grindings will be on the low side. There are rumors in Brazil of the devaluation of the cruzeiro which would permit Brazil to sell cocoa beans at a lower dollar value and still come out with the same number of cruzeiros as previous—so that this is a bearish factor.

If Brazil should devalue the cruzeiro, it is quite likely that the market would decline, but the present floor price in Brazil is only slightly over the world market price and it seems unlikely that Brazil would take such action at this time even though that country has a new crop coming to market.

In times when the market is evenly balanced, the speculator's position can be a determining factor for the immediate future, and this is what we believe the situation is today. Reference to the accompanying chart suggests a likelihood that the long-term trend will be toward lower prices.

(Editor's Note: Beyond a general discussion of the New York Cocoa Exchange, and a bit of historical background, no attempt has been made by the author to define all the trading rules and procedures. Such information is available at any brokerage house which handles commodity futures.)

## RADIO CORPORATION OF AMERICA



### Dividend Notice

The following dividends have been declared by the Board of Directors:

#### First Preferred Stock

87½ cents per share on the First Preferred Stock, for the period April 1, 1959 to June 30, 1959, payable July 1, 1959, to stockholders of record at the close of business June 8, 1959.

#### Common Stock

A quarterly dividend of 25 cents per share on the Common Stock, payable April 27, 1959, to stockholders of record at the close of business March 16, 1959.

ERNEST B. GORIN,

Vice President and Treasurer

New York, N. Y., March 6, 1959

## Pacific Gas and Electric Company

### DIVIDEND NOTICE COMMON STOCK DIVIDEND NO. 173

The Board of Directors on March 18, 1959, declared a cash dividend for the first quarter of the year of 65 cents per share upon the Company's common capital stock. This dividend will be paid by check on April 15, 1959, to common stockholders of record at the close of business on Mar. 27, 1959.

K. C. CHRISTENSEN,  
Vice President and Treasurer  
San Francisco, Calif.

**P·G·and·E·**



WRAP IT IN MIRRORS. Miles of aluminum foil for everything from heat-'n-eat meals to insulation and car radiators roll from Kaiser's new integrated aluminum plant at Ravenswood, West Virginia. It is one of over 115 aluminum foil mills built by Blaw-Knox.

## Record 194,000,000 pounds of aluminum foil rolled in 1958 most of it on Blaw-Knox Mills

As fast as versatile aluminum foil can be produced, it is gobbled up by supermarkets, food processors, home-builders, defense departments — and a long list of industrial users. The future looks great for foil — and for Blaw-Knox, the world's leading builder of foil mills.

Throughout industry, Blaw-Knox equipment, engineering and research are helping American enterprise build futures. If your company is concerned with rolling or fabricating metals, with road building, chemicals, processing or communications — Blaw-Knox is the forward-looking company you want working with you. Our brochure, "This Is Blaw-Knox," describes our products and services for industry. Write for your copy today.

## BLAW-KNOX COMPANY

1234 Blaw-Knox Building • 300 Sixth Avenue

Pittsburgh 22, Pennsylvania

# The Diamond Gardner year



## FINANCIAL HIGHLIGHTS

	1958	1957
Net Sales . . . . .	\$168,808,000	\$170,645,000
Net Income . . . . .	7,370,000	8,129,000
Per Share of Common Stock		
Net Income after preferred dividends . . . . .	\$1.92	\$2.15
Dividends paid . . . . .	1.65	1.80
Per Share of Common Stock		
Working Capital . . . . .	\$15.12	\$13.17
All other assets . . . . .	23.72	21.69
Total . . . . .	38.84	34.86
Less, Notes and Debentures payable and preferred stock . . . . .	12.24	8.72
Book value . . . . .	\$26.60	\$26.14

*Copies of the Diamond Gardner 1958 annual report available by writing to the Secretary.*

## DIAMOND GARDNER CORPORATION

122 East 42nd Street, New York 17, New York

Pulp Products • Paperboard • Cartons • Lumber • Building Supplies • Matches • Woodenware

For Diamond Gardner Corporation 1958 was a year of consolidation and preparation for future growth.

◆ In October, the company's *Integrated Forest Products Center* was completed at Red Bluff, California. Its modern equipment for both finished lumber and molded pulp products should produce increased earnings for California manufacturing operations. The *Molded-Packaging Division*, which improved sales of egg-cartons, disposable plates and FOODTAINER trays during the year, will also benefit from Red Bluff's efficiency.

◆ The expansion program of the *Gardner Division* progressed, with a new rotogravure carton printing plant put into operation.

◆ Substantial improvements were made in the manufacture, packaging and marketing of matches and NEET-HEET charcoal briquets by the *Diamond Match Division*. The popular self-lighting briquet packages will enjoy greatly expanded distribution in 1959.

◆ A slight gain in sales and profits was realized by the *Woodenware Division*. While results in the *Forest, Lumber and Retail Group* were disappointing, steps are being taken to improve efficiency and to consolidate and automate certain facilities.

◆ The company's English subsidiary, *Hartmann Fibre Company, Limited*, scored new records in sales and profits, and jointly owned *Dairypak Butler, Inc.*, which opened its seventh plant, also had a record year.

◆ Generally improved economic conditions, combined with the company's moves toward greater efficiency at every step from forest to customer, indicate more satisfactory profit performance for Diamond Gardner in 1959.





DR. HARVEY E. WHITE teaches Atomic Age Physics to 270,000 students on NBC's 5-day-a-week "Continental Classroom."

## RCA Electronics helps put new life into learning

Five years from now America's student population will approach 50 million—8 million above today's figure. By present standards there may be too few teachers and classrooms. But an important part of this problem will be solved *through electronics*.

Already, teachers are increasing student interest and covering ground faster with the help of such electronic aids as: RCA radios, records and record players, special audio-visual aids, TV, and tape recorders included in the "Language Laboratory Package." More

than 200 colleges and secondary schools have installed closed-circuit TV to improve instructing techniques and spread top talent beyond the walls of a single classroom. Still other schools use the programs of America's 35 licensed educational TV stations—approximately 60% of which are RCA-equipped.

Even at home, adults and youngsters alike are earning school credits through television.

Helping the teachers reach millions of students, providing communities with better schooling at the least cost are just a few of the ways RCA helps strengthen America—through electronics.



RADIO CORPORATION OF AMERICA

# Investing in Tomorrow's Bright New World

by David L. Markstein

IN THE BRIGHT NEW WORLD of tomorrow there will be many sign-posts of particular significance to investors. Here we are going to discuss some of the things an investor should look for, as well as some he should look out for to avoid danger to his dollars. We'll review industries and areas of (what we hope will be) the brightest growth.

Examining the whole industrial picture and the forces and trends which—as far as we can see them from here—are shaping the future, certain industries and certain stocks stand out as the surest, safest stakes in tomorrow. Let's look at these one by one.

Many industries with brilliant futures pack a lot of glamor. But not *all* of them are glamorous. Some are seemingly prosaic—such as the food industry. Yet within this every-day field are some gold-plated opportunities for participation in the bright world of tomorrow. I don't mean every segment of the food industry or every food stock—but a few.

Today the housewife doesn't labor over her foods. She takes something out of the freezer, adds something dehydrated and stirs in an "instant" additive—and lo! in minutes she has a meal tastier than her grandmother would have made in hours of work. The movement to convenience foods is a definitely established one. Convenience foods have revolutionized our living every bit as much as electrical appliances. *And the trend is just starting!*

To give you an idea of the impact convenience items can have on corporate profits, one of the biggest food packagers notes that something around 50% of its sales are now made in products not even in existence only 10 years ago. These new products make an even larger impact upon profits than sales, for they are able to carry better profit margins than older items in which intense competition forces close pricing.

Another food field with great future promise is preparation of food for the aged. Our population of older people is constantly increasing, and the problems of their specialized feeding offer excellent profit opportunities. Not every food company's stock in these two areas is a sound investment for future growth. Most are static at best. But in each the stock of one aggressive and research-minded large corporation stands out strongly.

There's a third area of the food industry with dynamic growth that, far from slowing, is accelerating. I mean the retail food chains. And here, too, not every chain—or even a majority—qualifies as a sound investment for profits in the bright world of tomorrow. There are three especially which have done very well by their stockholders in the past and which I believe are just as good for investing in tomorrow. Moreover, they are sound and conservative commitments.

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David L. Markstein is a registered (S.E.C.) investment counselor in New Orleans, La., and a graduate of Louisiana State University.

Another seemingly prosaic field offering a big stake—and with that a conservative stake—is the utility industry. For if we're to live better, electricity and gas will have a big part in it. And if our industries are to grow, they'll run on electricity and use gas increasingly as fuel. Many investment analysts tend to dismiss utilities as "money market" stocks. That is, stocks bought for income, which as a consequence move up and down only with the movements of the bond market. In a majority of cases this is true. But *some* utilities have growth records better than the records of well-known industrial growth stocks. And their future prospects are every bit as bright as their past records.

## SIGN-POSTS TO LOOK FOR

Where do you find these utilities? There are certain sure signs to look for:

*First*, look for utilities in growing areas. A utility benefits directly from population growth. Certain areas of the United States and Canada have population growth rates many hundred-fold more rapid than that of the country as a whole.

*Next*, look for utilities in regions where industrialization is proceeding swiftly. Not areas such as New England where industry growth is actually a minus quantity, nor those of some other sections already heavily industrialized. Don't select just any section not already industrialized, because there you may have a static situation, too; rather look for an area that is increasing the numbers and size of its electricity and gas-gobbling factories.

*Finally*—and this is just as important as the two check pointers above—areas where there is a favorable regulatory attitude. By that I mean an inclination by the authorities who regulate utility rates to let a utility earn reasonable percentages on invested capital. California, for example, qualifies under the first two points, but until very recently the attitude of its regulatory commission was one of refusing a rate of return that is reasonable in view of today's high costs of obtaining new money.

Texas, Florida, many Southwestern States and some Southeastern States, and a good bit of Canada, fit the three-point yardstick above. Within those areas, look for utilities whose management has shown its ability to generate future earnings (and not merely sales) growth by having generated excellent growth in the past.

During World War II the marriage rate took a big jump. Children born of those marriages will reach the marriage ages themselves in only a few years. Think what impact that will have upon our already prosperous building industry! There are two segments to this industry. The first is concerned with home building. It is booming right now, thanks at least in part to Governmental easy money policies for house financing. Whether you agree with these or believe them inflationary, they are here and are likely to stay.



You can't lick the situation but you can join it through selection of the right stocks that will boom in future when today's teenagers form families of their own.

The other segment is concerned with heavy construction. This is currently in a quiescent state because the heavy capital outlays that brought industry's expansion of the mid-fifties (and incidentally also brought some of the current productive overcapacity) are now considerably down.

But they *will* rise, due to two forces, although not necessarily in the early future. For one thing, today's overcapacity may well represent undercapacity in a few years and new factory construction will be necessary. And, for another, the long talked-of and slow-coming Federal highway program is finally about to move off the blueprints and become a fact.

And so on all counts the building industry looks like an active participant in the bright world of tomorrow. Not all of its companies are equally good growth commitments, of course, but there are several I feel should be mighty good stocks to hold over the years ahead.

#### PROSPECT GOOD FOR DRUGS

The drug industry is easily recognized as a vital participant in tomorrow's world. Right now, drug company scientists are researching cures for diabetes, cancer, diseases of the nervous system, and heart troubles. They're extending more familiar recent discoveries to the animal world and so opening new profit vistas in veterinary medicine. It's an industry so dynamic that even the maker of Carter's Little Liver Pills can turn overnight into a growth company of the first water through research in a single area.

The companies that actively research new products are those with the brightest promise. The history of a new product goes something like this: First, Company A discovers it and then for a time profits grow tremendously. Then other companies come in with competitive products and down goes the price. Soon, use of the product levels out and instead of a dynamic product, this miracle drug of yesterday has become a static one.

The emphasis on research insures a supply of new products in which a large market area can be captured and wide profits made, at least until the second and third phases of the product cycle catch up. Usually this takes three years, more or less. A research-minded drug company hopes that by the time the cycle closes it will be out with still another new line. Right now drug stocks are widely recognized as good commitments in the world of tomorrow and they sell at high price-earnings ratios as a consequence. But they are not unreasonably valued and certain selected drug stocks are good buys at current levels.

#### MORE LEISURE—MORE ENTERTAINMENT

People tomorrow will go for entertainment even more than we do today because they will have more leisure. And some, but by no means all, of today's entertainment stocks are likely to benefit. The danger of buying entertainment stocks helter-skelter, and of not watching them once they are bought, can be illustrated in movie stocks. Fifteen years ago, no industry's future looked brighter than that of the movie-makers. Today, theatres have closed wholesale and the studios' lots are being considered by real estate develop-

ers for housing subdivisions. The most valuable asset of Twentieth Century-Fox is not its movie-making ability but oil which has been discovered on some of its properties.

Tastes in entertainment change rapidly. But from here I like the stock of one of the TV networks very much. This company has a stake in electronics as well as in entertainment and in both fields is doing very well. Best of all, it has shown a flexibility in moving with the times that its competitors lack. In home entertainment, the stock of one electric organ manufacturer stands out. This company has converted the organ from an instrument usable only in churches and large institutions to one within the reach of every family able to buy a television set.

#### SALE-LEASEBACK ADVANTAGES

A trend today which gives promise of growing greatly in tomorrow's industrial world is sale-leaseback. Under this arrangement, a firm buys land, builds a plant or a store, then sells it and leases it back over a long period. Advantages are two-fold: First, the arrangement frees capital that would otherwise be tied up in land and buildings. Next, it has definite tax advantages, since *all* of the rental is a year-to-year expense, while if the buildings had to be depreciated over a lengthy period the tax bill would be greater. Moreover, the land itself could not be depreciated for tax purposes at all.

Leasing applies to more than merely land and buildings. One aggressive manufacturing company is moving into leasing of such items as aircraft, ships and the like. This company's future in the world of tomorrow looks very bright.

In the chemical field, many of yesterday's leaders may be absent when tomorrow's leaders are counted. The area of growth in synthetic textiles is still great, to give an instance, but everybody and his brother is in it and the profits may well lag behind the growth of sales.

#### EXAMINE CHEMICALS CLOSELY

Look instead for chemical companies in new fields or with semi-exclusive products that have wide growth possibilities. I'm thinking here of a smaller chemical company that makes the material for liquid detergents and sells it to the big soap and detergent makers. This company is growing tremendously and looks as if it will continue to do so. Best of all, its stock is still fairly valued on an earnings capitalization basis.

Look for growing companies in plastics. Look beyond the established companies when you do. For example, the plastic with most new promise today is polypropylene. And the leading manufacturer is not a regular chemical company, but a giant of the petroleum field. Petrochemicals have extended the boundaries of the chemical industry.

New adhesives for growing industrial uses are making another company—a smaller one—a growth commitment that to me looks better than Dow or Dupont. And then there are the rubber companies. Today the big ones are as fully in the chemical field as they are tire and rubber goods manufacturers. The dynamic nature of rubber-chemical companies today can be seen from the fact that although the recession made early inroads on their profits, most came back strongly in the second half to report earnings close to the record highs of the previous year. All of



## AMF Gained New Strength in 1958

American Machine & Foundry Company's sales and earnings in 1958 were second only to the record levels established in 1957. It is noteworthy that these results were accomplished in the face of a severe decline in general business activity.

- Sales and rentals for 1958 were \$230,877,000 compared with \$261,754,000 in 1957

- Net income for 1958 was \$11,008,000 compared with \$11,782,000 in 1957

Rental income for the year was the highest in the history of the Company. The extensive growth of bowling enables AMF to gain steadily increasing income in this field, and thereby maintain a stable—and expanding—earnings base.

Unfilled orders at December 31, 1958 were \$83,189,000, an increase of \$22,989,000 over our backlog a year earlier.

Dividends of 40¢ per share were paid by AMF on the common stock in each of the first three quarters of

1958. Earnings in the last quarter established a new quarterly high. In recognition of this, and of the more promising business outlook for 1959, the regular quarterly dividend was raised to 50¢.

1958 was the 32nd consecutive year AMF paid dividends to its stockholders.

We anticipate that 1959 will be a record year for AMF.

MOREHEAD PATTERSON,  
CHAIRMAN OF THE BOARD

CARTER L. BURGESS,  
PRESIDENT

*We will be pleased to send you a copy of the 1958 Annual Report*

— PLEASE USE COUPON —

Mr. C. J. Johnson, Secretary  
American Machine & Foundry Company  
Executive Offices  
AMF Building, 261 Madison Avenue, New York 16, N. Y.  
Please send me a copy of your 1958 Annual Report

NAME \_\_\_\_\_

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*Creators and Producers of Atomic and Electromechanical  
Equipment for Industry and Defense,  
and Leisure Time Products for the Consumer*

**American Machine & Foundry Company**



this was done in a year with very small automobile production, which cut the market for new tires drastically.

#### OFFICE AUTOMATION GROWING

In the field of office automation there is tremendous promise. Office management is going through what might be described as a paperwork revolution approaching the scope of the early industrial revolution. They are being forced to it by necessity because of the mounting cost and the relative scarcity of skilled office labor.

When you think of office automation, you think first of the makers of big office machines and computers. The opportunities here are so great that only the word "vast" describes them. And yet I do not believe that the *investing* opportunities always match the growth prospects of the field itself. This is because of several factors. First, the industry growth trend is so well recognized that the prices of such stocks as IBM have been bid up to utterly unreasonable levels. They discount earnings five, eight, sometimes ten years ahead.

Another danger is the fact that few companies in this field of such magnificent promise are making much money. IBM is, to be sure, and yet even that mighty growth giant's order backlog is currently down from earlier levels. Other firms find the start-up costs and research costs prohibitive. A great many which went into the computer field with high hopes have since withdrawn with their corporate tails between their legs.

An area that investors do not always consider when they look at the growth of office automation is the manufacture of forms and of automated copying equipment necessary to any paper work streamlining. Two firms, one in the United States and one in Canada, stand out. Their past growth records have been brilliant, and with all this past brilliance they are probably still only on the thresholds of their best growth years in tomorrow's bright world of office automation.

And, of course, there are those industries with extreme glamor—missiles and atomic energy. Frankly, I'm afraid of them. The current boom in missile stocks reminds me for all the world of the frenzied atomic bull market that mushroomed and then fizzled in 1954. Anything with "uranium," "nuclear" or "atomic" in its corporate name was good for a profit—or at least for a short time. Today few such stocks have regained the highs made half a decade ago.

#### BEWARE OF ATOMS AND MISSILES

Missiles and atomic energy are government-dominated business. And Uncle Sam is a fickle customer. He gives out the contracts today, cancels them tomorrow if a new product comes along or, if he decides he didn't want the item in the first place. Only recently, for example, Chance-

Vought was riding high with a big plane contract and a big and important missile contract. Then, within weeks both were cancelled, 3,000 Chance-Vought workers were on unemployment relief, and the company was looking sadly at the wreckage of its bright future. Nevertheless, there are a few stocks still soundly valued in these fields. Investing in them is a frankly risky business; but money can be made by the careful investor.

In all of this, remember that you don't buy an industry. *You buy selected stocks.* You can (and certainly should) try to diversify within an industry, but diversification isn't good if you diversify only in the wrong stocks. Individual stock selection has always been more remunerative than industry or market study and I suspect it will continue to be in this bright world of tomorrow.

And in all of this, too, some industries and some companies are going to fall by the wayside, just as companies with seemingly bright futures in 1955 have already fallen by the wayside. That is why you can't invest in the world of tomorrow by selection only. Supervision is needed.

Investing is a business like any other. It won't run itself. No sane merchant would buy merchandise and store it in a warehouse, expecting it to make profits by some magical means. Nor would a professional man believe that his career was underway just because his education had been completed.

Just as the professional man must continually study his profession and must set himself up in a place where persons in need of his services can find him, just as a merchant must inventory, display, advertise and sell his goods, just so must you work at your investments.

Investing in tomorrow's world can be a lucrative thing if you do this. And if you remember these points:

1. Many of tomorrow's best investments can be found in non-glamor industries that are as fully set to make the next years bright as are any electronic or atomic companies. Remember particularly the "prosaic" food and utility industries—but be careful in your choice of stocks within these industries. Only a few show real promise.

2. Look for companies with continuing research programs and a history of bringing profitable "rabbits out of their research hats."

3. If you buy speculative stocks, diversify. Your successes will hedge you against the loss possibilities.

4. Buy companies with *current* earnings as well as the prospect of better future profits.

5. Don't pay wild-blue-yonder prices for growth, no matter how inviting it looks.

6. Don't make the mistake of believing that because an industry has outstanding growth potential in tomorrow's bright world that every company in it will fare well. Buy stocks, not industries.

\* \* \*

Some five billion shares of stock are now listed on the New York Stock Exchange. It has taken less than three years to add the last billion shares, in contrast to 137 years required to list the first billion.



# FASTEST-GROWING FUEL in America's FASTEST-GROWING REGION

*El Paso Natural Gas Company reports record deliveries  
of Natural Gas to customers in the West*

Natural gas is America's fastest-growing energy source, and El Paso Natural Gas Company and its subsidiaries serve natural gas's fastest-growing market.

Deliveries of gas were at record highs in 1958 as El Paso and subsidiaries continued to expand their pipeline systems and increase their gas reserves to meet the long-term energy demands of the West.

For the second consecutive year, gas deliveries totalled more than a trillion cubic feet.

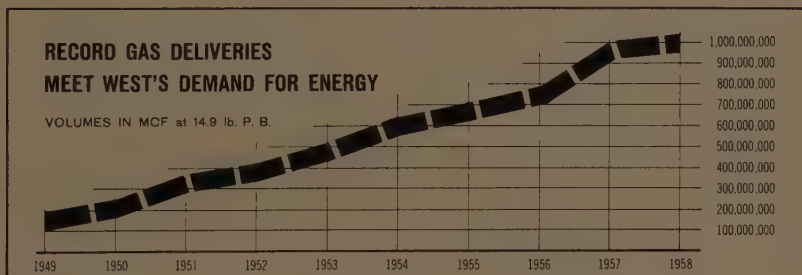
Extensive exploration and purchase programs brought total gas reserves at year's end to an all-time high of 38.8 trillion cubic feet—assuring vitally needed energy supplies for western consumers and industries in the years ahead.

El Paso's 1958 annual report, distributed to its 51,835 stockholders (an increase of 10 per cent in 1958) reports consolidated gross revenues for 1958 of \$368,299,522, compared with 1957's \$301,090,537. Net income was \$35,308,813 in 1958, compared with \$34,506,238 in 1957.

The report gives details of 1958's accomplishments, as well as plans to meet the future needs of western consumers—for natural gas, for petroleum, for petro-chemicals.

El Paso Natural Gas Company and its subsidiary, Pacific Northwest Pipeline Corporation, serve customers in California, West Texas, Arizona, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming and Colorado.

*For copies of El Paso's  
1958 Annual Report  
to Stockholders, write  
to El Paso Natural Gas  
Company, El Paso,  
Texas.*



## EL PASO NATURAL GAS COMPANY

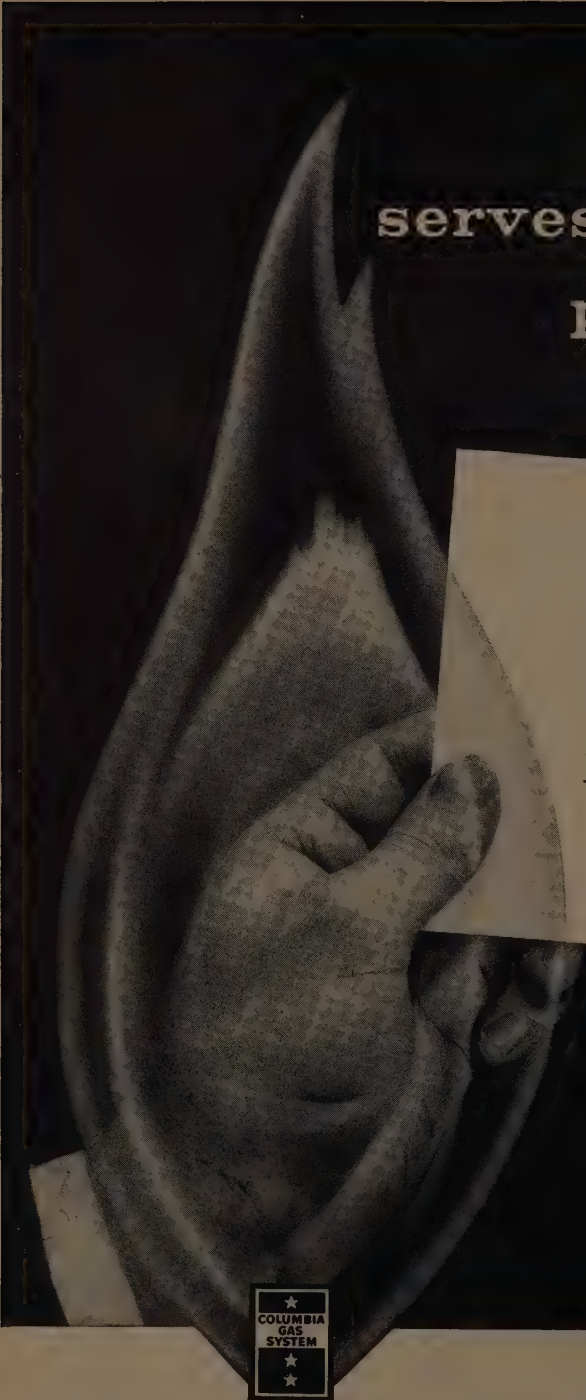


Common Stock listed on the New York Stock Exchange, Midwest Stock Exchange and Pacific Coast Stock Exchange.

Registrars: New York, City Bank Farmers Trust Company; Chicago, The First National Bank of Chicago.

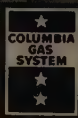
Transfer Agents: New York, The Chase Manhattan Bank; Chicago, Continental Illinois National Bank and Trust Company of Chicago.





# Columbia Gas serves a very special part of America

Thirty per cent of the nation's natural gas customers—22 per cent of the U.S. population—live in the seven states where Columbia serves.



Natural gas is the *preferred fuel* throughout the seven states where Columbia serves—Ohio, Pennsylvania, West Virginia, Kentucky, Virginia, Maryland and Southern New York.

## THE COLUMBIA *Gas* SYSTEM, INC.

COLUMBIA GAS SYSTEM SERVICE CORPORATION  
COLUMBIA HYDROCARBON CORPORATION  
120 EAST 41st STREET, NEW YORK 17, N. Y.

**CHARLESTON GROUP:** UNITED FUEL GAS COMPANY, 1700 MacCORKLE AVENUE, S.E., CHARLESTON, WEST VIRGINIA. **COLUMBUS GROUP:** THE OHIO FUEL GAS COMPANY THE OHIO VALLEY GAS COMPANY, 99 NORTH FRONT ST., COLUMBUS 15, OHIO. **PITTSBURGH GROUP:** THE MANUFACTURERS LIGHT AND HEAT COMPANY, 800 UNION TRUST BLDG., PITTSBURGH 19, PA. **COLUMBIA GULF TRANSMISSION COMPANY,** 1125 BRAZOS ST., HOUSTON, TEXAS.

# European Common Stocks

by Raymond L. Larcier

IN ANALYZING European Common Market securities, American analysts are often puzzled by the fact that available information differs greatly from that in the United States.

Basically this is because regulations regarding published corporate information, including the contents of balance sheets, are completely different.

Moreover, one must bear in mind that financial analysis on the European continent is actually a new discipline. Only recently has a somewhat enlarged scope of financial information become available, and even this is confined to a relatively small number of specialized financial institutions.

The reason for these situations are various. There has never been any real investment banking institutions on the European continent, the investment banking job being taken care of by commercial banks.

On the other hand, there has been a rather limited institutional investment in equities owing to the law govern-

analyst, without detailing the difference as to the legal status of the companies and the processing of public issues.

## CONTROL OF NEW ISSUES

Before taking up the basic differences in the methods of control, it may be noted in passing that the legislation of each country within the Common Market recognizes the right of the shareholder to participate in any new issue of shares, and on such occasions the companies give additional information on their operations. Regarding the control of new issues, this may take place either before an offer is being made to the public and/or before a stock exchange listing is obtained. Every stock exchange lays down certain conditions which must be complied with before a share can be listed.

*Germany:* Only bond issues require the previous authorization of the Ministry of Economic Affairs. The "Zulassungsstelle" or Stock Exchange Listing Committee, comes in the picture only when a stock exchange listing is being sought. The Committee requires that an introductory prospectus giving generally rather detailed information on the company in question, be distributed. Moreover, the bank or banks sponsoring a stock exchange listing must guarantee the accuracy of all information given by the prospectus.

*Belgium:* An independent, semi-public institution, the Banking Commission, was set up under an act of 1935 with relatively wide powers controlling issues. This Commission has the power to postpone issues should the capital market become unbalanced. Where a public issue of shares is being made, or their listing at the stock exchange is being requested, the Commission sees to it that subscribers are not misled either as to the nature of the undertaking or the rights pertaining to these shares. The Commission's activities in this field are aimed at promoting a gradual improvement in the contents of company prospectuses. The Commission has the right—unused as yet—of deferring a company's appeal for capital. The Quotations Committee of the Stock Exchange, on the other hand, decides whether it is advisable to list such shares. Some publications in the official paper have also to be made.

*France:* Where the amount involved exceeds 100 million francs, bond and share issues require the previous authorization of the Ministry of Finance as to both the date and terms of issue. Bond issues, of 25 to 100 million francs must, nevertheless, be first fitted into the "calendar."

The publicity which must be given to public issues is regulated by law, and includes the insertion in the "Bulletin des Annonces Legales Obligatoires" of a note containing information both on the company itself and the proposed transaction. This information must be included in all

Since this article was written, Glorie, Forgan & Co. announced the establishment of a new fund, called "Eurofund." Planning to invest primarily in equity securities of companies operating in the six Common Market Countries, "Eurofund" will avoid rigid investment policies which could prevent it from adapting its investment portfolio to changing political or economic conditions.

ing these companies, especially insurance companies, and the almost complete absence of mutual funds or similar investment organizations. Both of these situations are currently improving.

However, a traditional cooperation exists in most European countries between the big banks and a great number of industrial corporations, which means that these banks and their clients can obtain reasonable investment recommendations without having complete information.

This, of course, has very often been misleading, and as a result the public in various countries has disregarded investments in domestic securities. This is certainly one of the reasons why investments in United States and Canadian securities have met with such success. However, owing to the Common Market and the development of new techniques of investment analysis, it has become more and more important to study European securities.

We shall discuss here questions of direct interest to the

*Raymond L. Larcier is head of the Investment Department of the Banque Lambert in Brussels, Belgium. He is also manager of sundry investment funds in Europe.*



posters, prospectuses and circulars. Canvassing in view of selling securities is organized and ruled by law.

The decision to list shares at the stock exchange is taken by the "Chambre Syndicale" of stockbrokers, following a detailed report, under the supervision of the Government Commissioner and the Committee of Stock Exchanges (the national organization co-ordinating the activities of the various stock exchanges).

*Italy:* The issue of bonds and/or shares for an amount exceeding 500 million lira, requires the previous authorization of the Ministry of the Treasury, with the agreement of the Ministry of Industry and Commerce. This authorization is granted with the concurrence of the Interministerial Committee on Credit and Savings.

There are no requirements as regard prospectuses. Every issue, however, regardless of the amount involved, by a company whose shares are already listed at the stock exchange (or for which such quotation has been requested), as well as issues to be placed on the market through the banks, must be previously authorized by the Banca d'Italia.

*Holland:* The efforts of legislation are mainly directed against those deliberately misleading the investors by publishing false information in documents issued in connection with a call for funds. Various conditions are laid down by the association of brokers as regards the listings of new shares, but these are rather mild on the whole. Bond issues exceeding the sum of 10 million guilders require the previous authorization of the Nederlandsche Bank.

#### ANNUAL REPORTS

In these countries, either legislation or the stock exchange authorities require the publication of an annual report by the board of directors.

*Germany:* The balance sheet and the profit-and-loss account are drawn up in accordance with plans laid down by the Companies Act. In the matter of balance sheets, an increasingly large number of companies whose shares are widely owned by the investing public, go beyond the legal requirements and publish consolidated balance sheets. The balance sheets are certified by independent accountants. Some large companies send quarterly or semi-quarterly progress reports to their shareholders.

*Belgium:* Except for those of a few large companies, the annual reports of most companies appear in very condensed form. There are hardly any legal requirements for company accounts, except for banks, as well as insurance and electric utility companies. The Companies Act requires only that the fixed and current assets be mentioned separately and that, on the liabilities side, the debts of the company be clearly classified.

Consolidated balance sheets and profit-and-loss accounts are virtually unknown. A few companies give out, in the course of the financial year, brief summarized statements on their activities but not on their earnings.

*France:* For a number of firms, such as banks and insurance companies, and those which have revalued their bal-

ance sheets (that is to say, almost all enterprises) a detailed balance sheet requirement is laid down by law.

Considerable efforts have been made by several companies to improve their annual reports, and the "Chambre Syndicale" has insisted for several years on the need to increase the contents of such reports.

A new law has recently come out in pursuance of which companies must now give information about their turnover, and their investment portfolios, as well as publish semi-annual reports. This would certainly give a new interest to private investment.

*Italy:* The Italian Civil Code states what should comprise the contents of balance sheets and the principles on which they must be drawn, without requiring however that they be drafted according to definite forms. Under the law of March 8, 1958, electric utility companies must prepare their balance sheets in conformity with an established draft. Rather full and satisfactory reports are published by most companies. No interim reports appear during the financial year.

*Holland:* Certain big international companies have published detailed information: quarterly reports, consolidated balance sheets, etc. Other domestic companies limit themselves to the publication of rather schematic annual reports complying with the requirements of the local Chamber of Commerce. The Association of Stockbrokers (Vereeniging voor de Effectenhandel) is trying to induce these companies to improve their annual reports.

#### OTHER CORPORATE INFORMATION

Aside from annual reports and press comments, none of the members of the Common Market Countries possess any informative corporate statistical service, such as to be found, say in England and the United States. However, a similar publication now appears to be in its initial stage.

*Germany:* The main sources of information are the financial bulletins edited by the large banks and the studies appearing in the financial press. It may be noted, however, that if one has access to up-to-date reference material, including the numerous press clippings on German companies, one has at hand some of the information necessary for analysis. However, certain vital financial information is still lacking.

The annual general shareholders meetings are well-attended and such meetings are arousing increasing interest with the public. Questions from the floor are frequent and constructive.

*Belgium:* Only a small number of banks and periodicals publish reports on Belgian companies. The majority of such reports merely repeat information contained in the annual reports. These reports are also collected and published in condensed form as a financial handbook, but with considerable delay. Company meetings arouse little interest, with the exception of those of one or two leading companies.

*France:* In addition to the information published in the financial press, and by certain private banks, there is a



# ROCKWELL-STANDARD *reports for 1958*

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*a solid foundation for its optimistic outlook*



- Expanded research and development  
— the focal point of its world-wide progress
- Many new products introduced
- Two major acquisitions  
— takes full stride into executive aircraft production  
— acquires torque converter and transmission business
- Foreign activities expanded
- More than \$7 million capital additions
- More than \$56 million working capital
- No long-term or current borrowings
- More than \$115 million shareholders' equity
- More than 29 thousand shareholders of record
- More than \$204 million sales
- More than \$9 million net income
- Dividends maintained at \$2.00 per share



With 1958 Annual Report is 20 page brochure on Company's Aero Commander Executive Aircraft. Ask your broker for copy of this report or write to Secretary

## ROCKWELL-STANDARD

C O R P O R A T I O N

corporate office: coraopolis, pa.





special service giving condensed information—though it is not always up-to-date.

*Italy:* Some big banks publish studies of the annual reports of the large national companies.

*Holland:* Several financial houses publish studies, sometimes very detailed on the major Dutch enterprises.

It will be noticed that widespread differences appear on the single question of "safeguarding the interests of the investors." In Belgium only, a control of the issues is being exerted, whereas the Benelux countries have no effective law concerning balance sheets published by companies. While efforts are being made (in order to have the shareholders better informed) such efforts are almost fruitless in some countries and very successful in others.

#### FISCAL CONSIDERATIONS

Tax legislation influences the entire life of a company. However, the implications are so varied that an analysis here would be out of the question. As a matter of fact, all taxes, whether direct or indirect, are reflected in either the cost price or the financing. In passing, mention may be made of preliminary expenses, that is taxes on property transfer and on the sale of goods. To these one must add the unnamed taxes, consisting mainly of social charges, which not only place an additional burden on companies but also differ widely from country to country—arising as they do out of sometimes greatly historical and political circumstances.

It would appear that the effects of such differences will increase as the Common Market becomes more of a reality and competition grows. Companies operating in the same field will then no longer be able to pass on their entire tax liabilities. In principal, the most heavily taxed producers would have to pay out of profits that portion of their

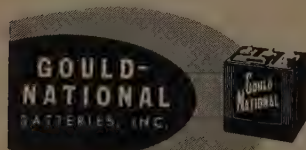
liabilities exceeding the liabilities of their less heavily burdened competitors.

If we limit ourselves to the taxes on profits and dividends, we shall find that the level of taxation on companies is more or less the same for all the countries within the Common Market.

It should be borne in mind that we have not taken into account the rates of depreciation authorized by the revenue authorities, which can, in certain countries, be an important source of indirect profit, both for the company and its shareholders. Such is the case, for example, where amortization at accelerated rates is permitted, or where fresh investments and new construction are encouraged. Actually, and this point should be stressed, the basis of taxation is not the same and one cannot really infer that the level is lower in Belgium than elsewhere.

It should be noted however, that the level of taxation is not the sole element to be borne in mind; the form of taxation is at least as important. In effect, there are differences even in fiscal theory as applied to companies. If Belgium has maintained a system of taxation at several stages which obscures the real taxation level, it has, nevertheless, refrained from double taxation (i.e., not taxed the individual twice). On the other hand, some Common Market countries regard the company as a taxable entity in its own right, and thus to be taxed independently of its shareholders, ignoring the fact that the company and its shareholders are one and the same entity.

Any comparison of corporate profits in European companies are difficult to analyze. Perhaps it would be more advisable to compare price cash flows, or gross income ratios. Again—as I pointed out in the first paragraph of this article—corporate information in Europe currently differs somewhat from that generally available in the United States; and thus it is seldom that one can arrive at similar analytical conclusions.



Manufacturers of a complete line of automotive and industrial storage batteries.

#### A REGULAR QUARTERLY DIVIDEND

of 50c per share on Common Stock, was declared by the Board of Directors on April 13, 1959 payable June 15, 1959 to stockholders of record on June 2, 1959.

A. H. DAGGETT  
PRESIDENT

ST. PAUL • MINNESOTA

## FULL THROTTLE for PROGRESS!

For 108 years the Louisville and Nashville Railroad's chief aim has been to provide a vital transportation artery for the nourishment of expanding southern economy. To accomplish this the L&N constantly invests in modernization of its facilities. During 1958 L&N spent \$43 million for improvements. In 1959 L&N has already authorized over \$45 million for further improvements.



These large expenditures for new cars, buildings, improved tracks and signals and other improvements (including L&N's third modern electronic classification yard, just opened at Birmingham) represents L&N's contribution to the Mid-South's growing economy and to faster and finer L&N service.

The Dixie Line is "wide open" for progressive service for the progressive Dixie-Land.

## LOUISVILLE & NASHVILLE R. R.

THE ANALYSTS JOURNAL

# STILL A GROWIN'

Again in 1958 the areas of Alabama, Georgia, Florida and Mississippi, served by the electric power companies of The Southern Company system, recorded substantial economic growth. This resulted in increased sales of electricity and higher revenues and earnings for our system companies.

Industrial power sales, which accounted for half of the system's total energy sales, continued to grow in diversity as well as in dollar volume despite a general reduction in business activity in many sections of the nation. The use of electricity in Southern homes also mounted steadily.

The impact of the 1957-58 recession on business activity in the Southeast was considerably less severe than in most other areas of the country. Manufacturing plants in our four-state service area are, for the most part, new and efficient and their operations generally were maintained at comparatively high levels. The region's economy was strengthened further by a rise in agricultural income and a heavy volume of residential construction.

With further gains anticipated in 1959, our system companies will expend more than \$190,000,000 this year for new facilities.

## HIGHLIGHTS OF OPERATIONS

Two Years in Brief	1958	1957
<i>Sales of Electric Energy</i> (Thousands of Kilowatt-hours)	18,903,181	17,915,065
<i>Operating Revenues</i>	\$ 272,134,000.00	\$ 254,536,000.00
<i>Consolidated Net Income</i>	\$ 38,234,000.00	\$ 34,822,000.00
<i>Earnings Per Share</i> (On Year-end Shares)	\$ 1.81	\$ 1.65
<i>Dividends Paid per Share</i>	\$ 1.20	\$ 1.10
<i>Construction Expenditures</i>	\$ 143,513,000.00	\$ 124,572,000.00
<i>Customers Served Directly</i>	1,485,366	1,452,818

Serving the Southeast through:

Alabama Power Company Birmingham, Alabama

Georgia Power Company Atlanta, Georgia

Gulf Power Company Pensacola, Florida

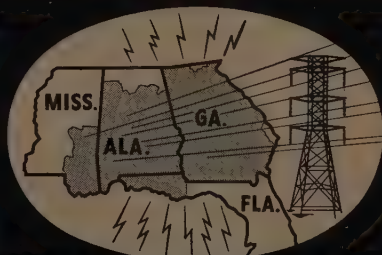
Mississippi Power Company Gulfport, Mississippi

Southern Electric Generating Company Birmingham, Alabama

Write for a copy of the Annual Report



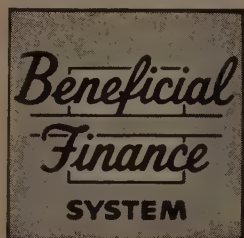
## THE SOUTHERN COMPANY



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BIRMINGHAM · 600 N. 18th STREET  
NEW YORK · 250 PARK AVENUE



# Beneficial Reports for 1958



- More than 1,500,000 families served
- Milestone of 30,000,000 loans reached
- Earnings at new record high

For the fourteenth consecutive year earnings of the Beneficial Finance System recorded a new high—every year since the end of World War II.

During the year a new milestone was reached—30,000,000 loans totaling \$7,800,000,000. This covers the period beginning in 1929, the year of incorporation of Beneficial Finance Co.

The small loan service provided by Beneficial has been the answer to the financial problems of many millions of families, by advancing the cash needed to refinance bills already incurred, to pay medical expenses, and to help through a temporary cash emergency.

... a *BENEFICIAL* loan is  
for a *beneficial* purpose.

HIGHLIGHTS	1958	1957
Net Income	\$ 21,731,164	\$ 20,152,232
Net Income per Common Share	\$2.07	\$1.91*
Cash Dividends per Common Share	\$1.00	\$.95*
Total Assets	\$521,551,077	\$511,768,524
Amount of Loans Made	\$712,861,626**	\$754,673,124
Number of Offices	1,142	1,089
Instalment Notes Receivable (after deducting Unearned Discount)	\$509,642,263	\$492,742,936
<p>*Adjusted to present capitalization.  **Principal only—commencing in 1958 unearned discount (approximately \$40,000,000 for the year) is being excluded.</p>		
<p>The information contained herein should be read in conjunction with the financial statements and notes appearing in the 1958 Annual Report to Stockholders. A COPY OF THE REPORT WILL BE FURNISHED UPON REQUEST.</p>		

*Beneficial Finance Co.*  
Beneficial Building, Wilmington, Delaware

MORE THAN 1,100 OFFICES IN THE UNITED STATES, CANADA AND HAWAII

# Monetary Forces and the Stock Market

by Arnold C. Schumacher

A STUDY OF THE FLOW AND USE of money has proved a valuable guide in business and stock market decisions for a great many years. In an economy such as ours, the functioning of money is perhaps the single most important indicator of business activity. What people actually do with the monetary resources they have at their disposal determines the demand for consumer goods, inauguration of capital spending programs and the purchase and sales of securities. The flow of money dictates what is produced, in what volume it is sold, and how savings are employed.

In two previous articles in the *Analysts Journal* (February, 1955, "The Relationship of Money Forces to Equity Prices"; and May, 1956, "Changes in the Money Forces During 1955 and Their Implications") we have discussed the use of certain ratios measuring the impact of money on business activity and security markets. In the present article we will review the action of these ratios in 1957 and 1958 and their application to the stock market in the past 10 years.

The author is convinced that a complete and thorough analysis of the dynamics of all money movements would provide a completely reliable guide to cyclical business forces. However, such an analysis is impossible to obtain and would be fantastically complex. This does not alter the fact that the transfer of a dollar from the bank account of the government, to business, to the consumer, and back to business or government—this process multiplied billions of times—is the very heart of economics. The ebb and flow of money resources is the life-giving blood which makes economic facts meaningful.

## DEFICIT FINANCING: NEW MONEY

Lacking any complete "system" or "model" of money dynamics, we are forced to rely on rather crude measuring devices. (And there is no study of money flows in existence which is not primitive.) There are certain monetary transactions which are more significant than others. For example, the making of a loan by a commercial bank generates an increase in spendable funds which did not exist previously. This has a relatively greater impact on the economy than the transfer of an existing dollar from one individual to another. Likewise, deficit financing on the part of the Federal government through the banking system also provides new money resources. Therefore, it is of special importance to measure bank lending activities and expansions in the money supply through deficit spending and to relate these to the total dollar demand for goods and services.

On the basis of figures supplied monthly by the Federal

Reserve System, it is possible to compute the money influences making for cyclical expansion or contraction. In our opinion, there are three significant money relationships which provide a guide to the creation and use of money in our economic system. Each of these ratios has a particular function in helping to determine the over-all picture of money flow.

The first ratio can be designated the Bank Credit Ratio and indicates the quantity of available monetary resources in relation to the needs of business for credit. The numerator of the ratio is composed of all bank deposits minus total bank loans. Since the bulk of all deposit liabilities of banks is supported by either loans or investments, this calculation essentially represents that portion of deposits backed by investment assets which are available for further lending operations. We may refer to the numerator of the Bank Credit Ratio as "net deposits."

The denominator of the ratio is total bank loans. Bank loans indicate the demand by individuals and business for credit. When bank loans rise, debts of the public are increasing; when such loans contract, debt is being liquidated. Thus, when "net deposits" (the loanable resources of banks) are rising faster than loans, there is little likelihood of any credit stringency and the Bank Credit Ratio will increase. However, if the public is expanding its debt at a time when available lending resources of banks are contracting, the implications are that the credit structure is becoming vulnerable and the Bank Credit Ratio will plot a downward pattern.

It should be emphasized that the Bank Credit Ratio is not designed to show any basic "shortage" or "excess" of loanable funds. The calculation measures relative trends only. As a practical matter, there is no way of knowing, in absolute terms, when loanable funds are in "short" supply. However, it is important to know when lending activities of banks are proceeding at a faster pace than can be maintained by lendable resources.

Table I shows the changes in this ratio during 1957 and 1958.

Total bank deposits rose moderately from \$187.8 billion in January, 1957, to \$192.2 billion in June. In the last half of 1957 deposits remained relatively stable, but a sharp rise developed in the early part of 1958 which has carried through to the present. Total bank loans rose slowly throughout 1957, but leveled off during 1958. The result of these changes was to cause a downward drift in the Bank Credit Ratio throughout 1957, as the lendable resources of banks failed to keep pace with loan expansion. However, in the early part of 1958 the growth in lendable resources proceeded at a rapid rate, at a time when bank loans were relatively stable. This combination served to cause the ratio to rise rather sharply. Whereas 1957 was characterized as a year of relative stringency in lendable bank resources, the situation changed markedly after January, 1958.

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*Arnold C. Schumacher is an economist with the Chicago Title and Trust Co. Previously he was executive director of Economic Trend Line Studies. He has also been an economist with the U. S. Department of Commerce and with the investment counsel organization of Scudder, Stevens & Clark.*



**Table I**  
**Bank Credit Ratio**

	(1) Total Bank Deposits*	(2) Total Bank Loans*	(3) "Net Deposits" (1) — (2)	(4) Ratio 3 — 2
1957				
January	187.8	108.0	79.8	73.9
February	188.9	108.2	80.7	74.6
March	190.0	109.6	80.4	73.4
April	190.6	110.4	80.2	72.6
May	190.8	110.7	80.1	72.4
June	192.2	113.0	79.2	70.1
July	193.3	112.2	81.1	72.3
August	192.5	112.7	79.8	70.8
September	192.5	113.4	79.1	69.8
October	193.3	113.0	80.3	71.1
November	192.2	113.0	79.2	70.1
December	192.9	115.2	77.7	67.4
1958				
January	193.2	112.5	80.7	71.7
February	195.2	112.7	82.5	73.2
March	197.6	113.9	83.7	73.5
April	199.6	114.4	85.2	74.5
May	200.9	113.9	87.0	76.4
June	202.1	116.4	85.7	73.6
July	205.1	115.2	89.9	78.0
August	205.3	115.1	90.2	78.4
September	205.0	115.9	89.1	76.9

\*Billions of Dollars

The second ratio which forms a part of the over-all trend measure can be designated as the Money Supply Ratio. This is the ratio of all deposits plus currency in circulation to the total monetary gold stock. Deposits plus currency constitutes a measure of money supply. In one sense, this ratio measures the relation between "soft" and "hard" money.

Gold plays a very vital role in money management. Under present law 25% of all currency issued, plus all Federal Reserve Deposit liabilities, must be secured by gold certificates. Consequently, the total of Federal Reserve notes and deposits cannot exceed four times the amount of gold certificates held by the Reserve Banks. Thus, gold sets the limit of reserve bank credit expansion.

An inflow of gold in the monetary structure (either as the result of foreign trade transactions, international capital movements, or domestic gold production) increases the ability of the banking system to expand loans or investments. Therefore, if the money supply is increasing at a faster rate than gold stocks, reserves begin to decline and there is an inclination on the part of monetary authorities to take action to limit new credit. The loss of gold undoubtedly has played a part in the decisions of the monetary authorities to pursue a more restrictive credit policy during most of 1958. On the other hand, when gold stocks are rising more rapidly than the money supply, the credit base is being broadened and enabled to support increased loans and investments.

While gold is an extremely important element in credit control, its movement is more or less passive. Gold increases or decreases rather slowly as the result of shifts in foreign trade, international capital movements, or domestic gold production. Money created through gold is inherently less active than money created by bank loans. The latter

is likely to be spent quickly and enter into the stream of business and consumer transactions. However, money generated by gold additions may remain as idle balances for a considerable period of time. Thus, the elements in this relationship, while they are no less real than those associated with bank credit, are potential or passive, rather than being dynamic and immediate.

The action of the Money Supply Ratio in 1957 and 1958 is shown in Table II.

The ratio was comparatively stable throughout the year 1957, and began to move up rapidly after the beginning of 1958. Total bank deposits in January, 1958, amounted to \$193.2 billion and increased sharply to \$205.0 billion by September. During this time gold stocks declined from \$22.8 billion to \$20.9 billion. In other words, the total volume of money rose very substantially at a time when that portion of the credit base represented by gold was contracting. The consequence of these changes was a very sharp increase in the money supply ratio. This signifies a potentially inflationary condition which may well be reflected at some future date in the over-all price structure of the economy. It is important to remember that while inflation is the result of an expansion in the volume and use of money, actual rises in prices may not take place for some months (or, in some cases, a year or more) after the money base has been broadened.

The third ratio in the Trend Measure we have designated as the Spending Ratio. The numerator of this ratio consists of debits to individual bank accounts. Since well over 90% of all transactions in the country are consummated by means of checks drawn on deposit accounts, this series gives a very good indication of current spending. Since every expenditure represents a demand for some product

**Table II**  
**Money Supply Ratio**

	(1) Total Bank Deposits*	(2) Currency Outside Banks*	(3) Money Supply* (1) + (2)	(4) Gold Stock*	(5) Ratio (3) — (4)
1957					
January	187.8	27.6	215.4	22.3	96.6
February	188.9	27.6	216.5	22.3	97.0
March	190.0	27.7	217.7	22.3	97.6
April	190.6	27.7	218.3	22.3	97.9
May	190.8	28.0	218.8	22.6	96.8
June	192.2	27.9	220.1	22.6	97.4
July	193.3	28.0	221.3	22.6	97.9
August	192.5	27.9	220.4	22.6	97.5
September	192.5	27.7	220.2	22.6	97.4
October	193.3	27.7	221.0	22.7	97.4
November	192.2	28.1	220.3	22.8	96.6
December	192.9	28.1	221.0	22.8	96.9
1958					
January	193.2	27.5	220.7	22.8	96.7
February	195.2	27.6	222.8	22.7	98.1
March	197.6	27.6	225.2	22.5	100.0
April	199.6	27.8	227.4	22.0	103.4
May	200.9	27.9	228.8	21.6	105.9
June	202.1	28.0	230.1	21.4	107.5
July	205.1	28.0	233.1	21.2	109.9
August	205.3	28.1	233.4	21.1	110.6
September	205.0	27.8	232.8	20.9	111.4

\*Billions of Dollars

**Table III**  
**Spending Ratio**

	(1) Total Bank Debits, 344 Centers (Seasonally Adj.)*	(2) Business Bank Loans R. M. B. (Seasonally Adj.)*	(3) Ratio (1) — (2)
1957			
January	205.2	31.5	65.1
February	200.5	31.4	63.7
March	189.7	31.9	59.5
April	200.4	32.2	62.1
May	201.1	32.2	62.3
June	188.7	32.9	57.3
July	204.7	32.2	63.5
August	196.3	32.2	61.0
September	194.5	31.7	61.3
October	196.0	30.6	64.0
November	190.9	29.8	64.0
December	191.5	29.9	63.9
1958			
January	212.6	31.9	66.7
February	205.2	31.6	65.0
March	195.9	31.5	62.1
April	212.2	30.9	68.6
May	198.8	30.9	64.3
June	214.1	30.9	69.3
July	210.7	30.4	69.3
August	191.4	30.4	63.0
September	200.5	30.4	66.0

\*Billions of Dollars

or service, the debit figures show demand in the total economy expressed in dollar terms.

The denominator of this ratio is business bank loans. Business loans (commercial, agricultural, and industrial loans) are a gauge to production, because an expanding production generally requires financing, and this usually entails bank borrowing. The rise of bank credit to augment working capital in order to increase output represents an employment of funds to raise the total supply of goods. Thus, business loan trends are a very sensitive indicator of business plans to increase production.

This Spending Ratio (Table III) is fundamentally a relationship between demand (spending as reflected in bank debits) and supply (bank loans made to business). When spending is moving ahead faster than production the implications are that inventories are shrinking and that higher levels of output are necessary to meet the demand. The reverse is true when output is rising faster than goods can be absorbed by the spending stream. The ratio value moves up in the former case and down in the latter.

During the first three quarters of 1957, business bank loans increased at a more rapid rate than bank debits. The result was that inventories were accumulated and business expansion proceeded at a more rapid rate than could be supported by spending. This, of course, is characteristic of the latter phase of a business boom. The final months of 1957 and the first half of 1958 witnessed a very slight decline in business bank loans with a firmness in debits. Such a combination suggested that the inventory correction would be short-lived and that the recession, despite its impact in certain geographic areas, was not sharply curtailing over-all spending.

These three ratios are combined in a simple arithmetic

average to form an Economic Trend Measure. The first is a yardstick of debt; the second gauges the money supply; and the third shows the spending pattern. We might apply this analogy to an individual. The financial position of an individual depends largely on the debts he owes, how much money (assets) he has, and his spending (income) situation. This is substantially what the Trend Measure, in an admittedly rather crude form, attempts to do for the entire economy each month.

Since the raw figures for each ratio are quite volatile from month to month, we have reduced each ratio to an index basis (1950=100) and placed them on a 7-month moving average. There is nothing particularly significant in using seven months and some other period might well prove as satisfactory, except that empirically this time limit works quite well. Table IV shows the course of the Economic Trend Measure.

The Economic Trend Measure drifted slowly downward throughout 1957. However, beginning in January, 1958, a sharp increase was generated which is still in progress. When the ratio is smoothed by a 7-month moving average, there are no sharp reactions from month to month, and once a trend is established, it continues for some months or even years. Therefore, the task of interpretation is simplified. It is also important to remember that the actual ratio value is not especially significant. The direction of movement is the primary consideration. A favorable economic climate is indicated when the ratio moves up, and a potentially dangerous situation is suggested when the ratio moves down. The actual level has little meaning.

By March or April, 1958, it was evident that the money forces were forecasting a strong cyclical recovery. This was happening at a time when there was still considerable con-

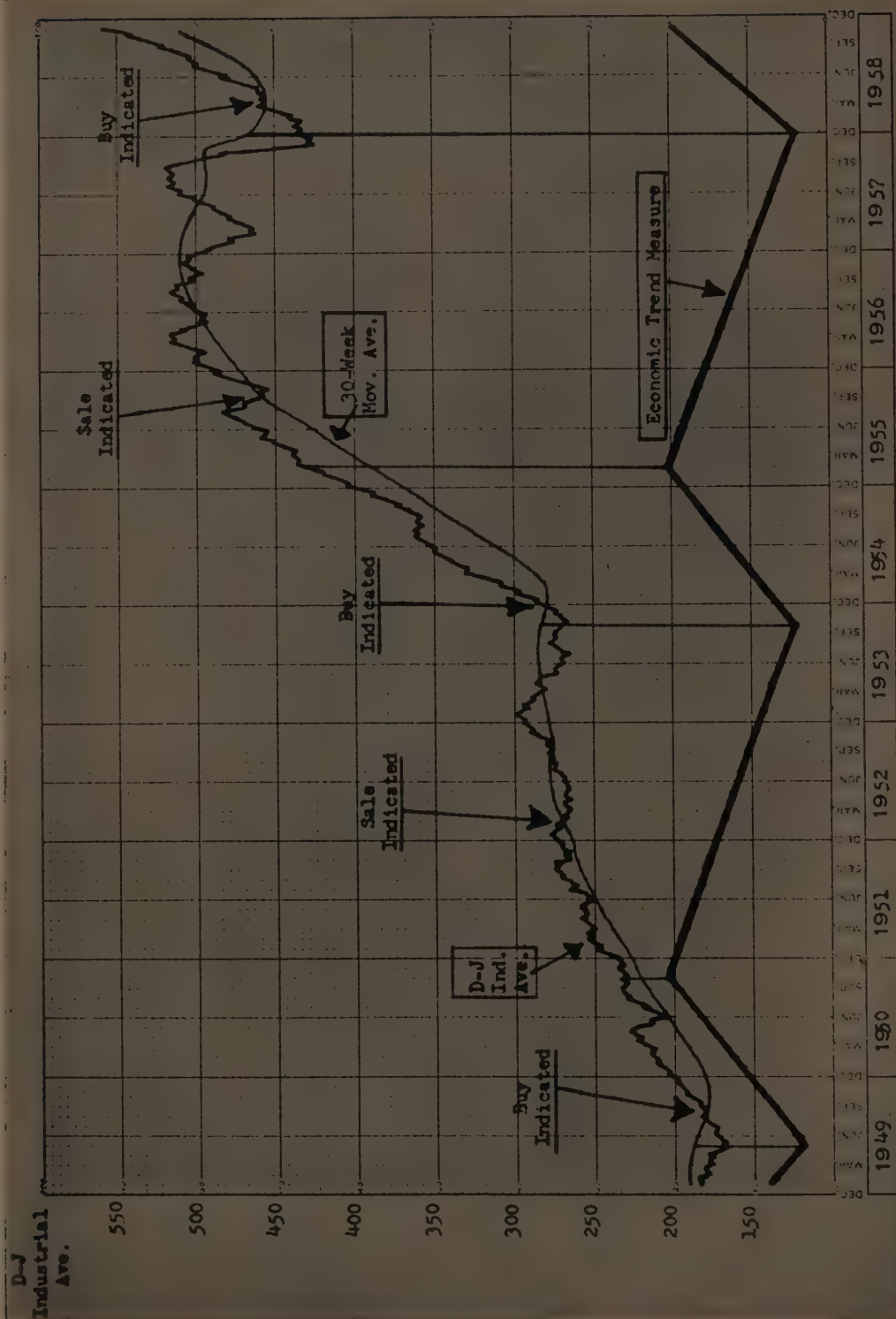
**Table IV**  
**Economic Trend Measure\***

	Bank Credit Ratio No. 1	Money Supply Ratio No. 2	Spending Ratio No. 3	Economic Trend Measure
1957				
January	44.0	138.5	79.0	87.17
February	43.8	138.3	79.0	87.03
March	43.6	138.4	78.1	86.70
April	43.5	138.5	78.7	86.90
May	43.4	138.3	78.4	86.70
June	43.2	138.3	77.0	86.17
July	43.4	138.3	77.5	86.40
August	43.2	138.6	76.8	86.20
September	42.8	138.7	76.3	85.93
October	42.6	137.7	77.1	85.80
November	42.4	137.4	77.5	85.77
December	41.9	137.4	77.8	85.70
1958				
January	42.1	138.3	79.5	86.63
February	42.1	138.3	79.7	86.70
March	42.4	138.6	79.9	86.97
April	42.8	139.8	81.2	87.67
May	43.2	141.5	81.3	88.67
June	43.5	143.7	82.2	89.80
July	44.4	146.4	83.2	91.33
August	45.0	149.2	82.5	92.23
September	45.3	151.9	82.7	93.30

\*Ratios based on a seven-month moving average and an index basis, 1950 = 100.



Chart I  
The Stock Market and the Economic Trend Measure, 1949-1958



fusion among business and financial analysts about events in the latter part of the year. The business community in the spring of 1958 remained generally cautious on the outlook, and there was widespread opinion that the recession might well continue throughout the remainder of the year. A careful study of money forces refuted such an idea quite conclusively, and events in subsequent months proved the value of this analysis.

What is likely to be the course of the money forces in the next several months? With the outlook for a continuation of Federal government deficits, the money supply will probably continue to increase. There is still no indication of a reversal in the slow attrition of monetary gold stocks. This combination of circumstances seems likely to cause the Money Supply Ratio to move higher. Total bank deposits will increase in sympathy with a growing money supply, probably at a more rapid rate than bank loans. Thus, the Bank Credit Ratio seems destined also to continue upward. It is difficult to project bank debits, but with the prospect for a rise in personal income, it seems logical for the spending stream to strengthen over the next several months. Looking at these factors it is difficult to see how the Economic Trend Measure can reverse its rising pattern until such time as fundamental conditions change rather radically. In other words, a study of the money forces, at this writing, suggest a continuation of the cyclical expansion through 1959.

#### APPLICATION TO STOCK MARKET

Chart I shows the course of the Trend Measure in relation to the Dow-Jones Industrial Average since 1949. The Trend Measure is shown in diagramatic form, indicating only the rising and falling phases. The irregular line is the weekly closing price of the D-J Industrials, and the smoother line is the 30-week moving average of these prices.

The technique found most effective is to use the Trend Measure in combination with this particular type of stock market chart. The underlying theory is that, as long as the money forces are favorable, the basic pattern of equity prices is assumed to be rising. The reverse is true when the money forces indicate weakness. However, experience shows that the stock market may move higher for several months or a year or more after the monetary indicator has begun to decline. Therefore, in this situation any reduction in equity holdings should be delayed until the actual D-J prices penetrate the moving average. The same is true when the money forces begin to rise. Buying should be delayed until such time as the actual prices have penetrated the moving average.

In 1949, the Trend Measure rose in June and in the following September the actual D-J price line penetrated the moving average. This was a "buy" indication. In the latter part of 1950, the Trend Measure began a long decline, but it was early 1952 before actual stock prices penetrated the moving average, suggesting a "sale." The pattern of 1949 was again repeated in the end of 1953 and a "buy" was indicated at about 280. Subsequently a "sell signal" took place in 1955 at approximately 460. In the early part of 1958, once again the money forces became strong and the

actual price line penetrated the moving average at about 450. This favorable outlook continues at the present time.

In the past decade the two recessions (1953 and 1957) have not been of such character as to cause a widespread and severe bear market in common stocks. Nevertheless, in both of these periods, individual equities of very good quality have declined as much as 50% or more in price. The use of the Trend Measure would have been helpful in capturing and retaining profits made in the expanding periods from 1949 to 1952 and again from 1954 to the beginning of 1956.

In a previous article ("The Relationship of Money Forces To Equity Prices," February, 1955) this relationship between the stock market and the Trend Line is charted from 1926. Its value is well demonstrated in avoiding market losses in previous strong bear markets such as 1929-32, 1936-37, and 1940-42.

#### CERTAIN ADVANTAGES CITED

We do not wish to make any extravagant claims for this type of analysis. It appears to the author to be a singularly helpful device for adjusting thinking to major cycles in stock market prices without having to indulge in conventional systems of forecasting. It has the merit, in a long period of years extending back to 1926, of giving an investor the advantage of major long cycle expansions and avoiding serious contractions. It does not provide an investor with the insight of buying at the lowest points or selling at the highest. Buying is generally a few months after the rise has begun and selling may be some months ahead of the market top, but this is good investment policy, both in theory and practice.

There are no secrets about the work. Anyone can, by proper historical study, reconstruct the method and the formula. Money movements are analyzed and interpreted by several commercial advisory services which make their findings available to subscribers for a fee. Generally speaking, these organizations are competent and provide helpful information. There is a great deal about the functioning of money and its impact on the economy that is not understood even by the most expert analysts. Most of the research on monetary matters has been confined to the impact of public policy and interest rates on business and markets. However, a great deal of work should be attempted to discover the meaning of the relationship of debt, spending, and the composition of the money supply, particularly with reference to their application in cycle analysis. In recent years a beginning has been made in the "flow-of-funds" studies of the National Bureau of Economic Research and the Federal Reserve Board. These, however, are of limited practical use.

There is no easy answer as to why money movements influence equity markets in the manner indicated by this article. However, the record since 1926 suggests that a correlation of cause and effect is present and that this correlation is not due to chance. We hold no specific brief for this method of analysis. Others may be more fruitful. However, we do believe that investment managers who neglect a serious study of money behavior are omitting a very helpful tool in appraising the market outlook.



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# The Method and Motives for Selling Short

by Peter G. Wyckoff

EVERY BUYER MUST HAVE a seller and vice versa. A buyer of stock is called a "bull". He buys stock low on the theory it will be tossed high. He is said to be "long" of stock, or the market. By nature he is courageous and optimistic.

The sellers of stock fall into three general categories:

- 1) The bull who sells to realize a profit.
- 2) The bull who sells to register a loss.
- 3) The "bear" who sells what he does not own in the hope of buying the same stock back again eventually at a lower price.

This latter practice is termed a "short sale". It is the primary function of the market pessimist, or bear.

*What Is a Short Sale?* The short sale has been described as the most complicated of all ordinary commercial transactions. While this may apply in the stock, or commodity markets, the practice is too commonplace in everyday life to merit more than casual mention.

Anyone pledging to deliver an article, which is not yet actually available, is party to a short sale. The farmer's contract to deliver unharvested produce is a short sale. So is a magazine subscription, an agreement for future delivery of a new automobile, or the contract specified by a railroad commutation ticket. Indeed, any transaction, which creates a debt in terms of promised goods, is a short sale.

As applied to stocks, the principles of selling short are but slightly different from purchasing on margin. In the latter instance, when stock is bought, payment is made to the seller with borrowed money. In the former instance, when stock is sold short, delivery is made to the buyer with borrowed stock.

*Selling Short for Speculative Gain.* Let us assume, for example, that you have unfavorable information about a certain company that makes you believe the price of its stock will sell lower in the market when the news becomes generally known. Perhaps you suspect that its dividend will be reduced, or omitted; that its sales may trend lower; or that a squeeze between costs and prices will depress future earnings. In your opinion, this represents grounds for "bearishness" (pessimism) on the future market price of the stock of the company concerned. So you decide to capitalize on this adverse news by selling the stock short.

*Executing an Order to Sell Short.* At 1:30 p.m., you instruct your broker to sell 100 shares of PRQ Co. stock "At the market—Short" for your account. The stock is quoted 49 $\frac{3}{4}$  bid, offered at 50. The last sale was 50, at 1:25

p.m. Following is the possible sequence of "Round Lot" sales (100 shares or any multiple thereof), about the time your order was entered:

Example One:		Example Two:	
Time	Price	Time	Price
1:25	50	1:25	50
1:35	49 $\frac{3}{4}$	1:28	49 $\frac{5}{8}$
1:40	49 $\frac{5}{8}$	1:30	49 $\frac{3}{4}$
1:43	49 $\frac{3}{4}$	1:35	49 $\frac{3}{4}$

A little before 2 o'clock, you get a report that you have "Sold 100 PRQ at 49 $\frac{3}{4}$ —Short".

In Example One, this was possible because 49 $\frac{3}{4}$ , the effective sale, was higher than 49 $\frac{5}{8}$ , the last "regular way" sale (regular way means not a short sale). In order to prevent short sellers from depressing the market deliberately, the Securities Exchange Act of 1934 stipulates that a stock may be sold short, only if the selling price is at least  $\frac{1}{8}$  point higher than the last "regular way" sale, or if the selling price is the same as the last sale, if such sale is higher than the last different price of a "regular way" sale.

Using Example Two, the short sale was possible, because 49 $\frac{3}{4}$ , the effective sale, was identical with the previous sale, which, in turn, was at least  $\frac{1}{8}$  higher than the last different sale (49 $\frac{5}{8}$ , at 1:28 p.m.).

*Brokerage Mechanics Involved.* Having completed your order and, so as now to acquire the stock sold for delivery to the buyer, the broker must borrow the specified number of shares from a group ("the loan crowd"), who specialize in such loans. To secure such a loan, the broker deposits with the lender the market price of the stock, or \$4.975.

Carrying this further, let us now assume that PRQ advances, instead of declines, and that it goes up three points over the next few days. Since the stock is still actually owned by the lender, any enhancement in value actually belongs to him. Therefore, on a three point rise, the lender is entitled to \$300 additional under terms of the loan, which stipulated "the market price" of the securities borrowed. It must be understood also that if the stock advances further — so that you are unable to maintain adequate margin in your account to provide for such a rise — the broker will be obliged to "cover" (buy in) the stock at a loss to you.

All short accounts are necessarily margin accounts. They have the same cash requirements, 90% of the market value of the security involved. However, under Stock Exchange regulations, the maintenance requirement on a short account is 30% of the market value, as against 25% for a long account. On 100 shares of stock sold short at 49 $\frac{3}{4}$ , the cash margin requirement, based on the current 90% rate, would be \$4,477.50. The stock could advance to about 72 before additional margin would be required to maintain this short position.

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*Short Covering.* On the other hand, should the stock decline, say to 46¾, or three points below the original selling price, and you wish to cover and take your profit, simply instruct the broker to "Buy 100 PRQ, at the market, covering Short", for your account.

Short covering purchases are made in exactly the same way as other purchases in the market. Following the execution of your order, the broker pays the seller, turns the PRQ certificate over to the lender, who then remits to the broker the original deposit made on the short sale and the transaction is completed.

The difference between the higher selling price at which you sold the stock and the lower price at which you bought it back—less brokerage commissions and taxes—represents your profit.

The seller may remain short indefinitely, so long as it is possible to borrow stock and the contract requirements are fulfilled. No interest is charged on a short position. However, it should be pointed out that (1) a premium may be necessary for borrowing the stock; (2) the short seller is liable for any dividends paid during the life of his contract; and (3) if the "capitalization" (number of shares outstanding) is small, or the stock is closely held, the broker may have difficulty acquiring the amount of stock needed for delivery.

*Other Motives for Selling Short.* The method of executing a short sale and the brokerage mechanics involved are always generally identical—yet the reasons motivating an original selling order may differ widely. In the earlier illustration, the short sale of PRQ was obviously made for speculative profit. The transaction constituted a private venture, and involved no regular species of security business. Short sellers of this type are usually broker-members of the Stock Exchange, or customers dealing through Member Firms, who sell short for a "quick turn" over a period of hours, or days, or as a longer term speculation.

Other types of speculative short sales are made rapidly and often, but for relatively small profit, by the so-called professionals during the course of their daily business. Considered as contributing to a more orderly and liquid market, they include short sales made by (1) the specialist, who, in his dual capacity of broker and dealer must maintain a firm and continuous market in one, or a limited number of securities; and (2) the in-and-out floor trader, whose rapid and frequent dealings on the long, or the short, side of the market make for closer, more stable prices.

However, it should be emphasized that not all short selling is speculative. Some short sales represent insurance against large price fluctuations. Others may constitute a temporary condition for facilitating the regular flow of securities owned by the seller, and are essentially technical in character. In this connection, the following species of short sale should be distinguished from the more spectacular types described previously.

*Selling 'When Issued' Stock.* Sometimes, when old securities are made exchangeable for new, as the result of a stock split, a stock dividend, or a corporate merger, the new certificates are not immediately available in deliverable

form. Without recourse to the short sale, the investor might not be able to liquidate quickly the "when issued" certificates to which he is entitled, but has not yet obtained.

Although the sale of "when issued" stock is not a short sale in the strictest sense (because it does not require borrowing stock for delivery) it nevertheless involves the sale of property, which is not yet actually in the seller's possession, and is therefore termed a short sale.

*Selling Stock Obtained through 'Rights'.* To protect against the possibility of lower prices—before the new stock made available by "exercising rights" is obtained—individuals sometimes sell short in advance the new stock to which they are entitled. Having sold this stock and borrowed the same amount temporarily for delivery, the seller finally closes the contract by returning to the lender the new stock, when he eventually obtains it from the issuing company.

The above two examples differ from other general types of short selling in that no necessity of repurchasing the securities sold short is involved.

*Selling Short for 'Hedging' Purposes.* Used primarily as insurance against large price fluctuations, is the short sale for "hedging" purposes—sometimes known as "selling against the box". This entails selling short an amount of stock, which is equivalent to the amount actually owned.

Because a long and a short position in the same number of shares of the same stock is maintained simultaneously, profits are fictitious. Any profit gained through price appreciation of the securities owned is cancelled automatically by a corresponding loss shown for the same securities, which have been sold short, or vice versa. Moreover, dividends have been nullified, since payments on the owned stock revert to the lender of the borrowed stock.

"Selling against the box" is often conducted by investors, who may be undecided about the intermediate price trend and wish to stay on the sidelines until the market outlook is better clarified. Whereas hedge sales could formerly be used against short term profits for tax purposes, recent legislation has blocked this loophole.

Hedge sales are also important to the "Odd-Lot dealer" (a broker operating in 1-99 share lots), who must avoid a large position, either long, or short, of the market, and to the arbitragist, who capitalizes upon varying supply and demand conditions by buying a stock in one market and selling it in another. Also to the "Put and Call" dealer who arranges contracts whereby the holder may "demand" (Call), or "deliver" (Put), a certain amount of stock at a specified price, on or before a fixed date.

#### THE UNPOPULAR BEARS

Despite the legitimacy and practical necessity of short selling, the market bears have sometimes been regarded as "charter fifth column members, working subversively, overtime, against all the holders of long stock."

This opinion has resulted mainly from stories handed down about former use of the short sale for manipulative purposes, and how short selling furthered high-handed trading methods in the old days.

Stocks invariably go down faster than they go up, and a

month or two of laborious advance in the market can be cancelled by a couple of days of brisk selling. This, plus the fact that the bears can make money while the bulls are losing it, doesn't sit well with the latter, who supposedly outnumber their adversaries better than ten-to-one.

Moreover, bear markets are synonymous with lower earnings and dividends, falling market prices and hard times ahead. Since most Americans are optimistic and, therefore, perennially bullish, the paradox of trying to profit by a decline in values is naturally suspect and generally unpopular.

**Anti-Short Selling Legislation.** A combination of these factors caused the short sale to be considered the "Big Board's" prime instrument of perdition for many years. This was true especially during periods of depression, when stocks were wickedly declining instead of angelically going up. At such times, with evil motives being ascribed to all short sellers, serious efforts were made to curb, or ban, their activities.

The first important law against short selling was enacted in 1610 by the Amsterdam Dutch. In 1733, "Sir John Barnard's Act" prohibited use of the device in England, while Napoleon I banned all Frenchmen from selling short in 1802.

A decade later, in this country, the New York State Legislature also outlawed the short sale. Although similar measures were adopted in Tokyo, Berlin and other financial centers, they were later rescinded. None of these laws accomplished its primary objective. Without the stabilizing influence of the short sale and its covering purchases, there was nothing to brake the booms in the market, or support the breaks.

On the London Stock Exchange, for example, some of the worst declines occurred, not in the speculative issues, but in bank stocks, where short selling was prohibited by law.

Only three times since 1858, when the initial ban was lifted, has short selling been impossible on the New York Stock Exchange: (1) For ten days in 1873, when all dealings, long or short, were suspended to allay the panic; (2) In 1914, for 4½ months, when war in Europe caused a similar closing; and (3) for two days in September, 1931, when short selling was prohibited as an emergency measure, after Britain quit the gold standard and European securities collapsed.

**"No Real Evidence, Pro or Con.** Anti-short selling legislation has been futile and all investigations or studies on the subject have been inconclusive. In 1907, because of the panic, a committee was appointed to investigate operations on the New York Stock Exchange. Following is part of the committee's report relating to short selling:

"We have been strongly urged to advise the prohibition or limitation of short sales, not only on the theory that it is wrong to agree to sell what one does not possess, but that such sales reduce the market price of the securities involved. We do not think it is wrong to sell something that one does not now possess, but expects to obtain later. Contracts and agreements to sell and deliver in the future property which



From the glow of a light bulb came the glittering world of today . . . linking continents and lighting cities; bringing new power and productivity . . . new leisure and pleasure . . . new "miracles" of electricity with every passing year.

On our golden anniversary, we salute the exciting progress of the entire electrical industry. And we salute the progressive area that has helped to make these years "golden" ones for us and we look forward with confidence to the future.

Our 1959 construction budget is \$53,000,000. With two additional generating units scheduled for completion by 1960, Vepco's system capability will be 2,200,000 kilowatts, or over four times that of 10 years ago.

#### 1958 HIGHLIGHTS

Property and Plant	\$625,000,000	\$51,000,000
Operating Revenues	\$139,660,000	\$10,060,000
Balance for Common Stock	\$ 23,537,000	\$ 1,821,000
Earnings per share (14,200,000 shares)	\$1.66	\$ .13
Number of Customers	815,000	19,000
Electric Sales		
—thousands of kwh	6,683,000	496,000
Service Area Peak Load—kw	1,439,000	106,000
Gas Sales		
—thousands of cubic feet	6,814,000	1,592,000



For a copy of our 1958 annual report, write to the Secretary.

**VIRGINIA ELECTRIC  
AND POWER COMPANY**

7th and Franklin Streets, Richmond, Virginia



one does not possess at the time of the contract, are common in all kinds of business.

"The man who has sold short must some day buy, in order to return the stock which he has borrowed to make the short sale. Short sellers endeavor to select times when prices seem high in order to sell, and times when prices seem low in order to buy, their action in both cases serving to lessen advances and diminish declines of price. In other words, short selling tends to produce steadiness in prices, which is an advantage to the community."

More recently, in 1951, the Twentieth Century Fund compiled a study on the subject, which summarized: "In the twenty years since May 1931, there appears no conclusive evidence that short selling materially affected the extent of a major decline, or a major advance, in the market as a whole."

From this and other evidences it appears that the role of the bear, in maintaining a broad and stable market, is highly important. Because he can close his contracts only by purchasing the securities he has sold short, the bear is a potential buyer and a good friend in a declining market. By thus helping to support the market, he is actually creating a demand for securities and assisting the very bulls, who may censor his activities.

#### WHAT MAKES A BEAR?

So long as ours is a free economy and selling short for possible profit is as legitimate as buying long for the same purpose, there will always be bears, as there are bulls.

Newcomers to the market are invariably bulls. Bears usually develop from a few sharp losses. This soon expands into the notion that the public is always bullish, that the public is always wrong and therefore fated to lose. From this evolves the idea that the buying side of the market is the losing side and the selling side is the winning side. Thus are some bears born.

But few bears have made their fortunes and kept them. This is because they usually overstay the market. Bears are chronic pessimists, hence they are chronic losers. The natural enhancement of values works against them: "Steeple" are taller than cellars are deep", and losses can be limitless. (For this reason, some bears try to protect themselves by entering a "Buy Stop Order," a point or two above the original selling price, or buying a "Call" on the same stock they have sold short). Also, bull markets last longer than bear ones.

Before the early 1930's, when there were no curbs on short selling and the capitalization of leading share issues

was relatively small, a group of determined bears could easily "hammer the market" (drive it lower) by the sheer weight of their persistent selling directed against certain key stocks.

But this practice known as "bear raiding", is strictly outlawed today, and the short sale, as a bludgeon in the hands of the speculator, is entirely a reminiscence. Manipulation in any form is forbidden; in fact, regulations such as the "1/8 Rule", make it impossible.

Secrecy, the gambler's former ace in the hole, has been trumped by (1) a decree that original selling orders be marked "Long", or "Short"; and (2) regular monthly publication of the outstanding number of shares sold short during the previous four-week period. Higher commission rates, the capital gains tax and margin and loan requirements have further restricted profits considerably for bulls and bears alike.

*Some Famous Bears.* Credit for inventing the short sale, as applied to stocks, belongs to Jacob Little. A pioneer in an age when gambling and manipulation were recognized parts of a broker's calling, Little reaped a fortune selling short in the panic of 1837. Although later outdone in scope and ingenuity, many of his tricks served as models for stock market intrigue in the 1860's. However, like most bears, Little overstayed the market and sold the Erie short too often. In 1856, unable to maintain a short position in 100,000 shares of Erie, he failed for \$10 million.

Also meeting disaster via the short selling route was Daniel Drew, Wall Street's "Venerable Bear" of the 1860's. Drew liked to "speckilate" so much, he forgot his own famous warning: "He who sells what isn't his'n, must buy it back or go to pris'n." When Drew died in 1879, his sole assets were a Bible, a watch and chain, a seal skin coat and a stock ticker. Liabilities, on the other hand, totaled over \$1 million.

Space precludes a longer, more detailed account of these and other famous bears who left their brand on the stock market. Fortunately for us, the devices they used to achieve such fame and occasional fortune are no longer allowed. The glamour formerly attached to short selling is cracked and tarnished now, but the old bear marauders may be hibernating.

Indeed, while it is perfectly legitimate and morally permissible, short selling today is mostly for the professionals, who can afford to overlook "Commodore" Vanderbilt's sage advice: "Never buy what you don't want, nor sell what you hain't got!"



### INTERNATIONAL HARVESTER COMPANY

The Directors of International Harvester Company have declared quarterly dividend No. 163 of one dollar and seventy-five cents (\$1.75) per share on the preferred stock, payable June 1, 1959, to stockholders of record at the close of business on May 5, 1959.

GERARD J. EGER, Secretary

### PUGET SOUND POWER & LIGHT COMPANY

#### Common Stock Dividend No. 63

The Board of Directors has declared a dividend of 38¢ per share on Common Stock of Puget Sound Power & Light Company, payable May 15, 1959, to stockholders of record at the close of business April 22, 1959.

FRANK McLAUGHLIN  
President

### ALLEGHENY LUDLUM STEEL CORPORATION

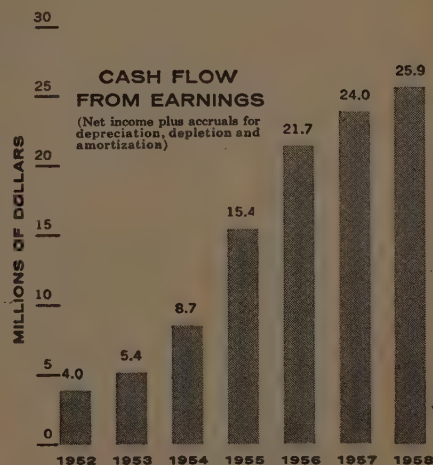
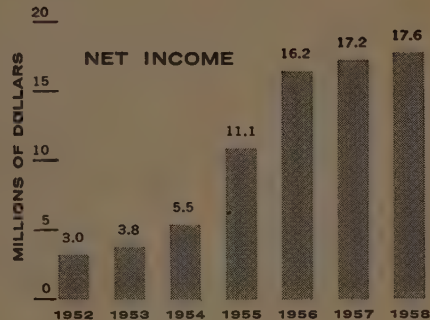
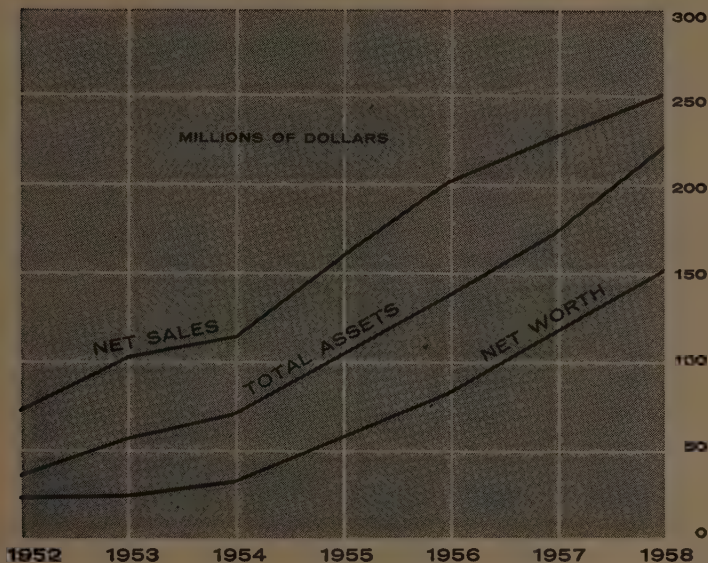
PITTSBURGH, PENNA.



At a meeting of the Board of Directors of Allegheny Ludlum Steel Corporation held today, February 27, 1959, a dividend of fifty cents (50¢) per share was declared on the Common Stock of the Corporation, payable March 31, 1959, to Common shareholders of record at the close of business on March 18, 1959.

S. A. McCASKEY, JR.  
Secretary

# How American-Marietta Has Grown



1958 was the ninth consecutive year in which sales of American-Marietta Company exceeded those of the prior year. The Company's Annual Report covering its progress and major activities has been sent to 33,700 Shareowners.

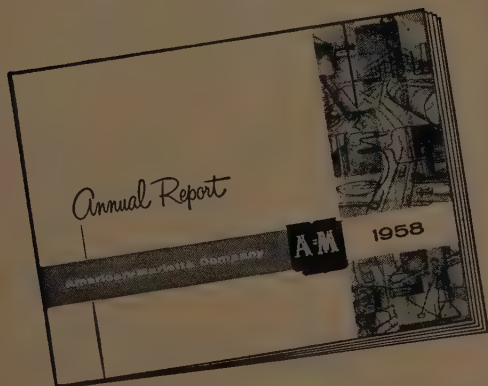
1958 Annual Report  
Sent on Request



Address Department 1

American-Marietta  
Company

101 E. ONTARIO ST., CHICAGO 11, ILLINOIS







## Growth and diversification

## are changing the face of Sundstrand operations

The year 1958 concluded with record sales of \$80,011,433, culminating a decade of volume growth built on continued diversification of engineered products within the company. Entry into the missile field made possible by our Turbo division also contributed to the 1958 sales increase. Continued development of aircraft hydraulic motors and hydraulic pumps and valves resulted in a broader sales base for the aviation division. Hydraulic division constant speed drives for truck refrigeration and bus air conditioning systems were introduced. Several minor acquisitions of companies were made to diversify our Machine Tool division into new market areas.

During recent years the company has diversified to the point where the words "Machine Tool" in the corporate name do not properly reflect over-all operations. Our annual meeting April 28 will be asked to approve a name

change to Sundstrand Corporation. We anticipate that 1959 will be another year of progress and growth for Sundstrand.

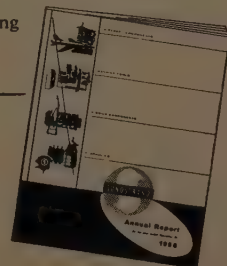
*Bruce F. Olson*  
President

### COMPARATIVE STATEMENTS OF INCOME

	1958	1957
Net Sales	\$80,011,433	\$77,522,897
Net Earnings Before Taxes	6,620,654	7,216,753
Income Taxes	3,355,862	3,617,800
Income Taxes per Share	2.16	2.36
Net Earnings after Taxes	3,264,792	3,598,953
Earnings per Share	2.10(a)	2.34(a)
Shares Outstanding	1,552,904	1,535,178

(a) Based on shares outstanding end of year.

Copies of our 1958 Annual Report are available upon request. Address Sundstrand Machine Tool Co., Rockford, Ill.



# SUNDSTRAND

SUNDSTRAND MACHINE TOOL CO.  
Rockford, Illinois

# General Motors Common Stock

(Continued from Page 72)

great economic change. While the automobile industry may have wished to see two cars in the garage of every American home, as Henry IV wanted to see a chicken in the pot of every Frenchman on Sundays, it had no way of knowing to what extent this wish may be fulfilled, despite all the advances in the art of gathering statistics of income, conducting surveys of consumers' intents and studies of motivation.

At the close of World War II, the automobile industry was well aware of the explosive nature of deferred demand. But it was struggling with shortages of materials. In the Annual Report for 1948, GM still expresses regrets for its inability to fill all orders promptly. Not until the second quarter of 1949 was the more than three-year log jam of shortages of steel finally broken. And this problem was soon to plague the industry again at the time of Korea.

## Structural Change

How well GM knew that a fundamental change had taken place is shown in its successive annual reports. Already in 1949, the management states that the potential market for new cars had been permanently expanded. It points to the growth and progress of the country as well as to the change in income distribution which brought more family units into the medium and higher income classes. More people could afford to buy new cars than before the war. In fact, the company showed considerable foresight as witnessed by the following excerpt:

"Even before the end of the war in 1945 General Motors recognized that the demand for its automobiles and other products would pose a production problem that could not be solved with its pre-war facilities. Accordingly, a postwar program was developed to meet this production challenge."

The hangover from the great depression of the thirties prevented the American people from realizing their full potential until war and victory released all the energies of the nation. A new economy was being forged. The national emergency of Korea again compressed the economic main-springs and unleashed them once more for still greater thrust.

As far as the automobile industry is concerned, its new physical limits were not reached until 1955. By that time, the industry had produced in the United States alone 48,508,037 passenger cars since 1947. In 1946, the total number of privately owned passenger cars on the road in this country was 28,100,188. Even the Lord had to rest on the seventh day of Creation!

The story of the automobile industry is also that of the American economy at large. Financial savings and economic needs accumulated during the wars could not meet each other fully until the joint homecoming of the husbands and the goods. New houses and new cars were then purchased and equipped.

## The Economics of GM

In its 1948 report, GM concedes that during the first decade of its existence there was no evidence that it would

grow to its present scope and become the leader of its industry. Between 1909 and 1916, when major competitors were making rapid strides, GM's share of the industry's car and truck sales dropped from 19% to 9%. But by 1923 GM again accounted for 19% of the market and kept on climbing to 28% in 1926 and 44% in 1927. That year was a landmark in the company's history. It crossed the 40% line for the first time. Yet it could take little credit for this accomplishment. In 1927 Ford suspended the production of his Model T in order to retool for the new Model A.

"The high degree of competition which General Motors has had to meet throughout its existence," says the 1948 report, "is illustrated by the fact that since the automobile industry was first started more than 2000 makes of cars and trucks have been offered to the public. Of this number fewer than 60 are now being produced. Thus, the automobile business is one in which the risks are large and the need for skillful management great.

"In building its own business General Motors has followed the traditional American approach of attracting more customers by striving for greater efficiency, thus keeping costs low and customer values high."

How successful GM has been during the postwar years may be quickly summarized by a few key figures. Despite the pressures of war and inflation, GM's strength has remained unimpaired. At the end of the period shown in our Historical Table, the company's position within the economy and its own industry had suffered no setbacks compared to the early years.

A sensible way of measuring the corporation's position at the inception and at the close of this score of years would be by comparing some characteristic average figures for each of the three years 1935-37 and 1955-57 which, in both cases, included important cyclical peaks.

Some of these figures show an amazing similarity. As between the two three-year segments, net sales have grown 8.15 times and income before taxes 8.18 times. The average profit margins calculated on income before taxes are 17.25% at the beginning and 17.33% at the end of the period. They would both round out to 17.3%.

It is, of course, well to bear in mind that the profit margins of the later years received a boost from the exceptionally high volume of business. But they also suffered from higher costs. The management was able to hold its own in the economic universe in which GM dwells.

Other comparisons also show great uniformity. Average book values increased 5.3 times, while average per share net and average price both rose approximately 4.7 times.

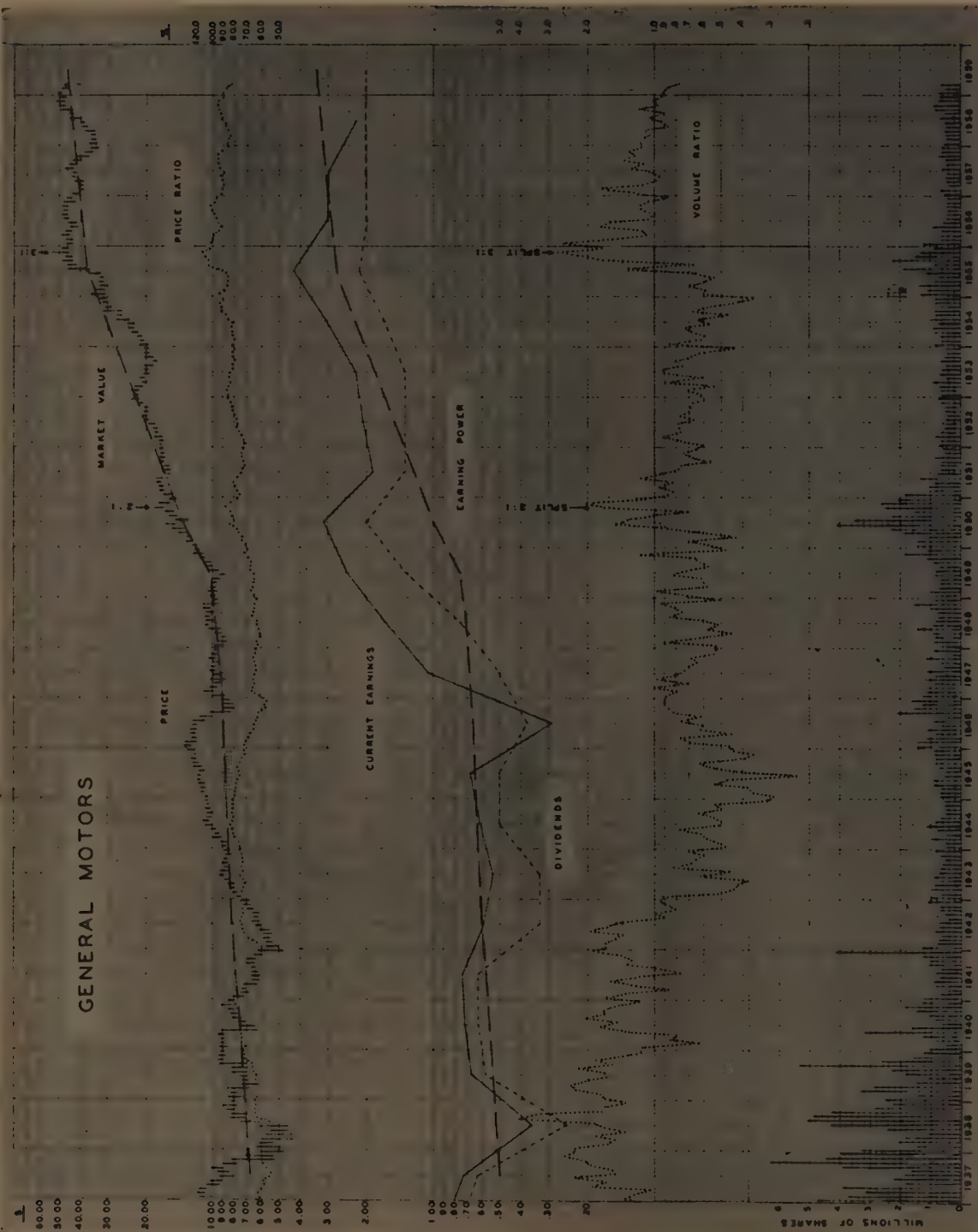
However, total taxes paid in 1955-57 were 25 times those paid in 1935-37. The taxes grew three times as much as sales and income. As a result, profit margins calculated on net income after taxes dropped from 14.4% to 8.4%.

In this connection, John Burr Williams, consulting economist, and author of the famous *Theory of Investment Value*, states in a recent letter that:



# HISTORICAL CHART

## GENERAL MOTORS



Few people have much to say about the huge rise in the corporate income tax rate during the last generation. In the 1920s the rate was around 15%, as I remember it, and now it is up to 52%. Your figures on GM show that the rate of profit before taxes has held up over the years, but the rate after taxes has been cut almost in half. This would seem to confirm the theory of the economists that an income tax cannot be shifted forwards or back, and that it falls right on the stockholder, and cuts deeply into the dividend-paying power of the corporation, making its common stock worth much less than it would otherwise be.

Dr. Williams had other interesting comments. He points out that:

In view of the intensity of competition in the motor industry, the question comes up as to what powerful factor, if any, accounts for GM's high margin of profit. The company enjoys a higher degree of vertical integration than Chrysler, to be sure, and so it ought to show a higher margin of profit on sales, because the profit on the manufacture of bearings, carburetors, and what not that goes to Chrysler's suppliers is garnered by General Motors for itself. To do so, however, GM needs a higher capital investment per car produced, and this high investment carries its own risk with it, and could easily lead the company into losses in a bad year for the industry as a whole. There must be something more to GM's profitability than mere vertical integration. I think this something extra is an economic rent, a rent of location, that comes from using many scattered regional assembly plants and saving on freight. This set-up gives GM inherently lower costs of production. It is a set-up that will work only for a very big company, and Chrysler is not big enough to use it. Even Ford is not big enough to use it on as wide a scale as GM does. In my opinion this is the reason why GM is so profitable.

#### *GM and Inflation*

It is a tribute to the great management of a great corporation whose executive leadership and talent, to say the least, are second to none that GM has been able to hold its own in a most difficult environment, not only when comparisons are made in dollars and cents but also on the basis of economic realities adjusted for the depreciation of the purchasing power of money.

Our Table entitled "Partial Historical Record" has figures of unit sales as well as those of earnings and book values after deflation by the Index of Wholesale Prices of the Department of Labor. The resulting comparisons are summarized below:

#### **Average Annual Growth: 1937-1958**

Unit Sales (omitting 1942-1946) .....	4.4%
Wholesale Price Index .....	4.8
Deflated Per Share Earnings .....	5.8
Deflated Book Value .....	4.4

#### *New Trends and Problems*

A recent Italian cartoon pictures a car long enough to intimidate a whale. The driver and the passenger are sep-

arated by a distance approximating a city block. Attired in tails and wearing a resplendent silk hat, the passenger must be sufficiently a prophet in his country to command such a magnificent, even though cumbersome, vehicle. But in the apparent absence of a telephone—or at least a Morse key—communications between him and the driver are difficult. To do things right, the government provided a motorcycled messenger. He comes to attention, saluting smartly, and the great man sends him forth to tell the driver to go to the Ministry.

It is a bad omen for big cars to have become the world's laughing stock. The writings in the sky are even sadder for the medium priced cars; for they are neither "fish nor fowl"; they float somewhere in between the worlds of reality and illusion and seem to belong to the past much more than to the present or future. The misbegotten Edsel and the unhappy Buick, which has just driven a courageous and fighting man into premature retirement, are portents of things to come. In fact, the writer of this report has recently sold his beloved New Yorker and is about to proceed to Europe to bring home a Mercedes.

If one projects the trends of today to the target of their accelerating momentum, tomorrow's untouchables will be the guys and dolls rolling in "insolent chariots", "dream-boats", and "Spanish Armadas". The badge of success is no longer to own the mostest and the biggest of automobile industry's products, but to have become a world-wise traveler and connoisseur, possessed of independent judgment, smart enough not to be taken in by prophylactic ads featuring puppets who stand in front of "gas-guzzling dinosaurs" and who proudly beam uniformed smiles at classily lassie companions. We all know better now! We either buy the Silver Cloud or the Isetta, and both if we can.

In the concluding paragraphs we shall try to appraise a little more critically the possible impact of recent trends on the appraisal of GM stock. We shall also consider some specific threats and problems facing the company as such. In the meantime, we should not neglect to inquire how the Stock Market itself appraises the value of a share of General Motors stock.

#### *Market Value or Price Orbit*

The significance and function of the Price Orbit, Market Value, or Normal Price—which are different terms for designating the same economic concept—have been discussed by the author in several of his previous articles. They were outlined once more in the long theoretical study in the February 1959 issue of *The Analysts Journal*.

Perhaps the quickest way of bringing out the concept's meaning is by referring to our Historical Chart. The curve of Market Value will be found there cutting through the monthly price ranges of GM stock.

#### *Method of Computation*

The method used in this report for finding Market Value is not altogether unlike the familiar price-earnings ratio approach. But it is carried a step or two further.

To compare the relative merits of individual stocks, the price-earnings ratio puts them on a common denominator by expressing their prices in terms of earnings. The ratio



becomes a multiplier applied by the market to current earnings to determine the stock's value.

The size of this capitalizer depends not on present earnings alone, to which it is applied, but on estimated future earnings as well. If earnings are expected to grow, the market will place a higher multiplier on current earnings. By changing multipliers, the market, i.e., the investors and speculators who comprise it, differentiate between stocks with different earnings prospects. Even in the case of the same stock, its market capitalizer will change when the evidence becomes convincing that the rate of growth of its earnings is changing.

One of the drawbacks of this approach is that both earnings and stock prices at times change so rapidly, and so dramatically, that it may be difficult to derive from their ratio a clear idea of the stock's value.

Thus, in the case of GM, and in terms of the present stock, adjusted for the 1950 and 1955 splits, per share earnings soared between 1946 and 1949 from 29c to \$2.44, i.e., almost 10 times. Simultaneously, the price-earnings ratio, figured on the average price of each year, tumbled from 37.7 to 4.2. Even if the first two and immediately adjacent years only are considered, i.e., 1946 and 1947, earnings rose from 29c to \$1.04 per share, while the price-earnings ratio fell from 37.7 to 9.4. And if we compare the same factors for 1955 and 1956, we observe a decline of per share earnings from \$4.26 to \$3.02 and a rise of the price-earnings ratio from 9.1 to 15.0.

This instability of earnings and price-earnings ratios suggests that more significant valuation results might be obtained if these two factors were smoothed out. Analysts often try to do so by averaging out both earnings and ratios or either.

As far as earnings are concerned, a good moving average can be, under certain conditions, an acceptable measure of representative earning power. An average of price-earnings ratios is more difficult to justify. Each ratio is the result of variations in two separate entities whose characteristics are quite different. Changes in the ratio are, therefore, highly complex. Averaging them may produce misleading results.

#### *Earning Power*

Beneath the shifting sands of current earnings investors try to perceive the contours of solid ground. Because of these efforts to measure the more enduring earning power, investors are willing to pay with higher multipliers for present earnings promising future growth.

The Historical Chart shows GM's earning power since 1937, computed from the average historical relation between earnings and dividends of all stocks for almost a century. Based on the concept that earnings are the "dividends' fund", it is adjusted for changes in the rates of growth of the earnings, offering both inherent stability and inner logic.

To check whether our estimated earning power does faithfully picture the ideas of investors we compared it with estimates made by financial writers and statistical services throughout that period. It checked out well.

Earning power is the foundation of market valuation. In fact, earning power *is* Market Value. The difference between them is in the respective levels. The two lines repre-

senting them on the Historical Chart are parallel. The application of a capitalization multiplier at the level of earning power raises it to the level of value.

#### *Capitalization Multiplier*

If earning power, as distinct from current earnings, is the basis of capitalization in the stock market, the true capitalizers must be those price-earnings ratios which occur when current earnings stand at the level of earning power. On our Chart, these are the points where the two lines intersect. The respective deviations of all the other points on the curve of current earnings from the line of earning power can be easily computed. They will indicate how the true capitalizer compares with the ordinary ratio. Finally, correlation analysis can establish which is the most representative capitalizer of earning power for the given stock during the period studied. Such a capitalizer will have a real economic significance that cannot be attained by averaging price-earnings ratios compiled from current earnings.

The above summary is a bird's-eye view of how the stock market capitalizes earnings. A comprehensive discussion may be found in the previously mentioned study in *The Analysts Journal* of February 1959.

The constant capitalizer of GM's earning power for the period covered by the Chart is 13.5. It is identical with the capitalizer for the general market, i.e., for an all-stock average since 1871—doubtless because GM is a particularly significant company. Its size and the nature of its business makes it highly representative of American industry. Its equity has many characteristics of an average of all common stocks.

#### *Nature and Limitations of Market Value*

The line of Market Value on our Chart in no way reflects personal opinion. To the extent that earnings govern value and that the line of earning power adequately represents investors' judgment of its level, no other curve of Market Value could have been correctly drawn. Its tracing offers factual information. Whether we draw it or not, it is always invisibly present as a price orbit which expresses the gravitational pull of capitalized earnings. The only contribution of this report is to reveal its course just as chemical processing brings out the picture registered on photographic film.

Nevertheless, we should be careful not to overrate the theoretical significance or the practical importance of Market Value. In the magnetic field which surrounds it are focused the impulses and revulsions of many people. Not all are valuation appraisals of capitalized earnings. Some are governed by sentiment rather than reason; emotions may happen to rule the marginal pair whose demand and offer seal the transaction. The appetites for or aversions to a stock may be brought forth by an infinite variety of motivations and feelings. And when the desire to possess prevails over the doubts, it must still be transformed into effective demand by availability of purchasing power. Nothing of all this is reflected in Market Value, but only in the price itself. As used in this report, Market Value expresses merely the stock market's own judgment as to the proper capitalization of earning power.

Within these limits, it is the collective verdict of the

market that the Market Value of GM common now stands around 46. At this level, the 1959 Market Value, or Price Orbit, of GM is about 12% below its Theoretical Intrinsic Value and some 8% under its current market price. Under normal conditions, in dealing with so huge an enterprise as GM, the market and the analysts are likely to concur in their estimates of value. These differentials may be due to the fact that the special problems currently confronting GM contained sufficient ballast for pulling its Market Value down.

#### *GM's Market Action*

In this report, primarily concerned with valuation, the question of the stock's market action should not rate more than the significance of an Appendix to the discussion of its Market Value.

Our Historical Chart shows two characteristic ratios. The Price Ratio indicates the relative action of GM as compared to Standard and Poor's index of 500 stocks. It shows that, after reaching its high in November 1955, GM has been acting worse than the market.

The Chart also shows the activity of transactions in GM stock as well as its ratio to the total number of shares traded on the New York Stock Exchange.

In the case of the actual volumes, shown by bars at the bottom of the chart, adjustments have been made for all splits during the period covered. These volumes are thus on the same basis as today's shares and as the price ranges

shown. On the other hand, the unadjusted volumes are used for the Volume Ratio because they are related to the total volume of transactions on the New York Stock Exchange which is likewise a gross, unadjusted figure.

In November 1955, the number of outstanding shares of GM was increased threefold. Yet despite this enormous addition to GM's relative volume, the Volume Ratio declined sharply the following month, showing a drying up of speculative support and thereby registering an important buying climax in GM common. The rise of the Ratio in January 1956 coincided with a decline in the price of the stock. The Ratio's peak that month corresponds to a selling climax.

On the whole, the Volume Ratio's action has been largely unfavorable since the end of 1955 and through the early part of 1958. Its respective rises and declines were usually moving in the direction opposite to that of the stock's price. Its several selling climaxes have marked temporary reversals of selling pressure, but the subsequent action of the Ratio continued to be devoid of vigor.

In a letter reviewing the preliminary GM valuation report, John S. Nichols of The Nypen Company, Inc., remarks that the Volume Ratio helps to point out the selling climaxes in 1938, 1941, and, to a lesser extent, in 1953. And it is also pointed out that the buying climaxes in 1950 and 1955 corresponded with periods of overvaluation.

GM's most recent market action suggests an improvement in both the Price and Volume Ratios also. The stock's

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## Newport News Shipbuilding and Dry Dock Company

### Quarterly Statement of Billings, Estimated Unbilled Balance of Major Contracts and Number of Employees

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	Three Fiscal Months Ended	
	March 30, 1959	March 24, 1958
<b>Billings during the period:</b>		
Shipbuilding contracts . . . . .	\$ 30,777,740	\$ 25,544,876
Ship conversions and repairs . . . . .	6,903,932	4,684,979
Hydraulic turbines and other work . . . . .	4,156,391	3,381,203
<b>Totals . . . . .</b>	<b>\$ 41,838,063</b>	<b>\$ 33,611,058</b>
	<b>At March 30, 1959</b>	<b>At March 24, 1958</b>
<b>Estimated balance of major contracts unbilled at the close of the period . . . . .</b>	<b>\$315,753,882</b>	<b>\$412,801,144</b>
<b>Equivalent number of employees, on a 40-hour basis, working during the last week of the period . . . . .</b>	<b>12,823</b>	<b>12,422</b>

The Company reports income from long-term shipbuilding contracts on the percentage-of-completion basis; such income for any period will therefore vary from the billings on the contracts. Contract billings and estimated unbilled balances are subject to possible adjustments resulting from statutory and contractual provisions.

By Order of the Board of Directors  
R. I. FLETCHER, Financial Vice President

April 22, 1959

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Market Value may now be in the process of catching up with its theoretical appraisal.

#### CONCLUSION

In rounding out this report, we should not fail to take into account the principal uncertainties currently confronting GM.

Less than four weeks ago, on April 9, Judge Walter J. LaBuy of the U. S. District Court in Chicago, after completing the hearings, took under advisement plans of stripping du Pont of its GM holdings. This action is the result of an unexpected split decision by the Supreme Court. It was rendered in June 1957 under a section never before applied to vertical integration and which is part of an Act different from the law on which the government was resting its case. By another irony, the same jurist who originally threw out the government's case is now attending to the application of the contrary mandate.

The forthcoming silencing of the once dominating du Pont voice in its board meetings can no longer undermine the established excellence of GM management. Judge La-Buy's decision will have no effect on the appraised value of GM's stock. But if the government's plan of divestment should be fully or substantially adopted, as against the du Pont plan of shedding effective control but retaining the investment, it could not fail to have a detrimental effect on the stock's market price. Its recent better action will be undoubtedly reversed and, for some time to come, there should exist a pronounced gap between the theoretical intrinsic value and the market value of GM. This differential will probably tend to narrow with the progress of time and of the mechanics of disposal, but a dampening effect on the price could remain.

GM shall also have to face another difficult problem originating in the Antitrust Division of the U. S. Justice Department. New York's grand jury will begin a broad investigation of whether GM's size gives it too much economic power. The antitrust officials hold that GM presents a case of undue concentration and may reportedly attempt to break it up into two or more independent corporations.

The eventual outcome appears far off in the future. But even if the Justice Department should actually press the case and eventually win it, it is doubtful that this should adversely influence either the value or the price of GM. The company's organizational set-up is such that it already operates now, within the same corporate shell, on a basis of independence of its most important constituent units. If some day the threat of a break-up should become more real it could conceivably have a bullish effect on the stock.

Perhaps the greatest present uncertainty overhanging GM, and its two principal competitors as well, is the advent of the compact car. The psychological aspects of the apparent shift in consumers' demand are only one of the facets of this complex problem. While the change became first pronounced in a year of recession, it may well happen that its greatest cumulative momentum will come from prosperity and confidence in the future rather than poverty and

fear. Smaller and cheaper cars could make possible and even likely the emergence on the national scene of multiple car families by simultaneously reducing the costs of acquisition and operation. And the record of births indicates that we are beginning to enter a period when the rate of growth in the numbers of young drivers should begin to exceed that of the population. This should also stimulate demand for cheaper cars. Young people buy cars—often with their parents' money—long before they are in the market for new homes.

The development of these trends—if it should come about—is likely to be gradual and slow. Ignorance as to the real depth of the market for small cars and the high cost of tooling will prevent the Big Three from attempting any risky plunge. Besides, the sales of the traditional cars are far from dead. For the first time since 1955 there has been this year a March-April sales increase, strengthening the hopes of a very good year. To dramatize the point, we imitated perhaps too much, in a preceding section, the missionary fervor and the picturesque slogans of George Wilcken Romney.

Economic necessities are stronger than momentary whims. People not only want cars—they need them. And the necessity for smaller size—entirely apart from the economy angle—arises also out of the simple arithmetic of available space. We are living on a small planet and seem to be approaching conditions of standing room only on its congested surface. There is such a thing as putting too many cars on the streets and even the highways. A smaller size may be a help just as renting should keep developing further.

As far as GM is concerned, it seems clear that the introduction of utilitarian cars will mean lower profits on their sales and therefore some watering down of the over-all margin as well. But if the compact car's penetration of the market will grow, the larger number of units would help to restore the level of earnings. GM has what it takes to capture its traditional share of the new market and to do so on economically efficient and profitable terms.

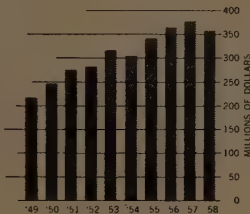
We also sincerely believe that this great organization will continue to produce the leaders it needs most in the particular economic environment in which it has to survive and prosper. It is undoubtedly no accident that so many of them came and went at precisely the right moment. Harlow H. Curtice, the most recent, but undoubtedly not the last among the "Mohicans," shed the cocoon of an accountant and became the most aggressive salesman, entrepreneur, plant builder, model changer and stylist just in time to make GM successfully ride the tidal wave of the first half of this decade. And when his talents were no longer needed, he was ready to step down and leave the helm in the hands of a pilot attuned to today's needs.

If Tolstoy could return to write the story of General Motors, he would perceive that, in a smaller—but more compact—realm than either Napoleon or Alexander knew, there are still men who come forward to answer the collective call of the times.

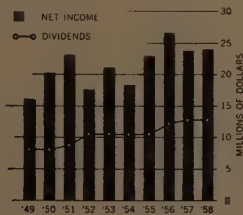


**Sohio achieved a good record  
of operating results, earnings, and  
progress during 1958**

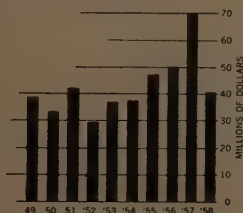
#### SALES



#### NET INCOME AND DIVIDENDS



#### CAPITAL EXPENDITURES



#### HIGHLIGHTS

	1958	1957
Net sales and operating revenue . . . . .	\$358,000,924	\$377,486,875
Earnings . . . . .	\$ 24,044,463	\$ 23,920,335
Earnings per share of common stock . . . . .	\$4.82	\$4.79
Dividends per share of common stock . . . . .	\$2.50	\$2.50
Capital expenditures . . . . .	\$ 40,311,716	\$ 69,884,975
Net production of crude oil and other liquid hydrocarbons — barrels . . . . .	12,887,050	13,317,844
Petroleum products sold — barrels . . . . .	44,582,547	45,531,071
Crude oil processed at refineries — barrels . . . . .	46,763,435	40,421,499

*for a copy of Sohio's 1958 Annual Report write to the secretary:*

**THE STANDARD OIL COMPANY (An Ohio Corporation)**  
Midland Building • Cleveland 15, Ohio



# TOLEDO - vital link between Seaway and the whole Midwest

With excellent transportation, ample water supply, favorable tax laws — plus an abundance of labor and plant sites — Toledo and Northwestern Ohio offer highly desirable conditions for industry. And now, Toledo's commercially strategic position on the St. Lawrence Seaway promises even greater growth and diversity.

Alert to the future, Toledo Edison is placing increased emphasis on industrial sales and area development. Our sales engineers work closely with area manufacturers to help make industrial operations still more profitable through electricity.

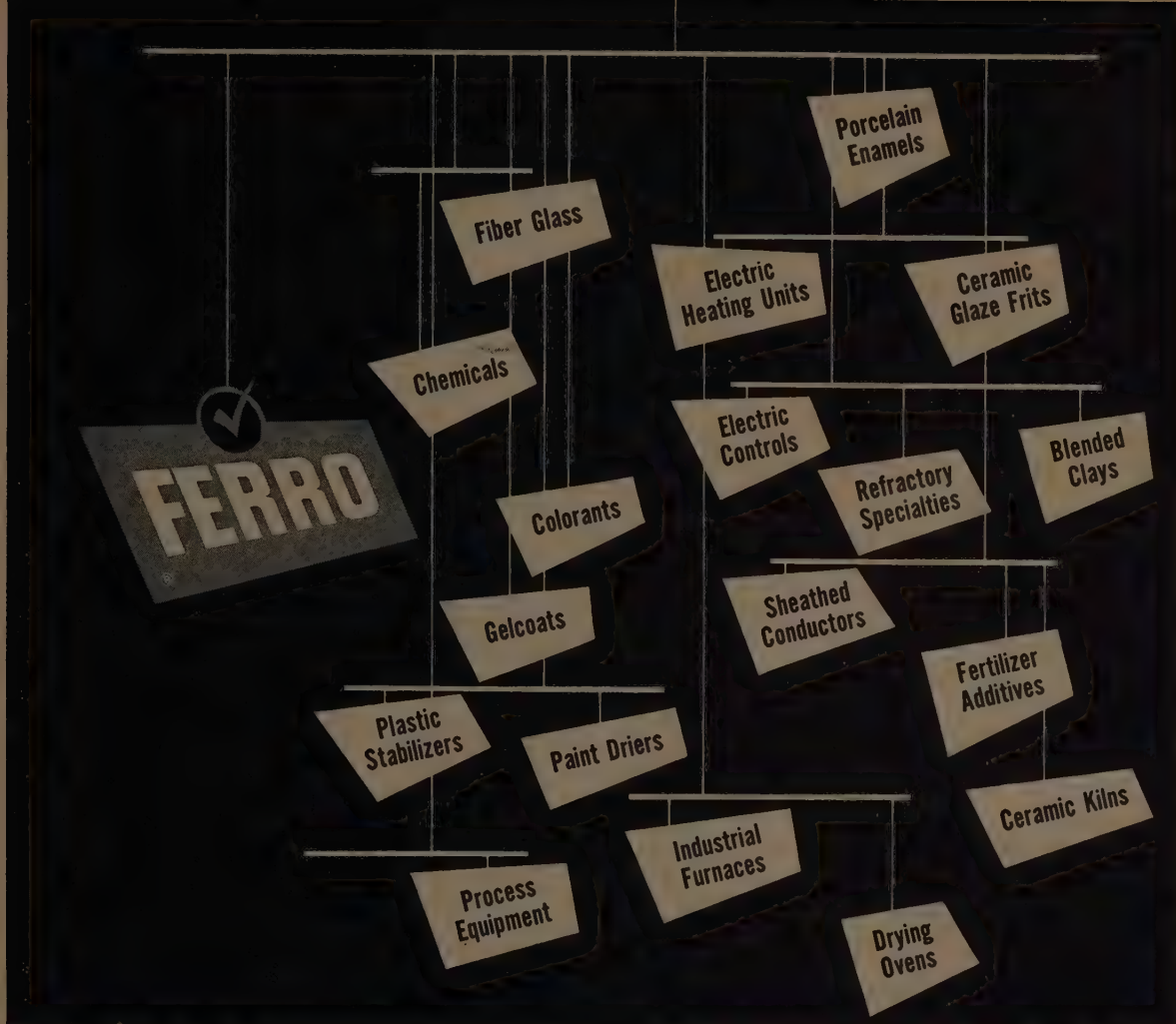
Write for a copy of our Annual Report for 1958, reviewing in detail our year's operation.

## RESULTS OF OPERATIONS

FOR THE YEARS ENDED DECEMBER 31,

	1958	1957
	Thousands of Dollars	
OPERATING REVENUES - - - - -	\$42,868	\$42,449
OPERATING EXPENSES		
Fuel - - - - -	\$ 8,268	\$ 8,597
Other Operations - - - - -	9,290	8,877
Maintenance - - - - -	2,306	2,887
Depreciation - - - - -	4,272	3,981
General Taxes - - - - -	3,806	3,600
Federal Income Taxes - - - - -	5,949	5,817
Total Operating Expense - - - - -	\$33,891	\$33,759
Operating Income - - - - -	\$ 8,977	\$ 8,690
INCOME DEDUCTIONS		
Interest Charged to Construction (Credit*) - - - - -	\$ 1,002*	\$ 317*
Interest and Other - - - - -	2,850	2,459
Total Income Deductions - - - - -	\$ 1,848	\$ 2,142
Net Income - - - - -	\$ 7,129	\$ 6,548
PREFERRED DIVIDENDS - - - - -	1,333	1,333
EARNINGS ON COMMON STOCK - - - - -	\$ 5,796	\$ 5,215
EARNINGS PER COMMON SHARE - - - - -	\$1.12	\$1.01

**THE TOLEDO EDISON COMPANY**  
SERVING NORTHWESTERN OHIO  
**TOLEDO 1, OHIO**



**\* CONDENSED CONSOLIDATED BALANCE SHEET AS OF DECEMBER 31, 1958**

ASSETS		LIABILITIES	
Cash	\$ 2,238,285	Current Liabilities	\$ 7,598,256
Notes & Accounts Receivable	8,098,896	Long-Term Liabilities	
Inventories	11,188,113	Due After 1959	6,800,504
Other Current Assets	854,843	Other Liabilities & Reserves	479,257
Current Assets	\$22,380,137	Shareholders' Equity	24,071,977
Other Assets, Including Investments, Property, Etc.	16,569,857		\$38,949,994
	\$38,949,994		

\*Annual Report, Just Released, Is Available on Request



**FERRO CORPORATION**

4150 EAST 56TH ST. • CLEVELAND 5, OHIO



White glow of torches casts rings of shadow, as tugs are welded inside a section of kiln made in Milwaukee for later installation at Nashville plant.

# Marquette in 1958

## Modernization highlights a year of accomplishment

We're modernizing plants and equipment at the rate of \$6 million a year—now that cement producing capacity has overtaken present and near future demand by wide margins. We will continue this program, currently in its third year, in order to raise operating efficiency, reduce production costs to the lowest possible level, and thus maintain our traditional competitive position.

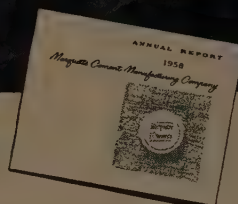
Highway construction increased in our 18-state market during 1958; we had no further break-in costs at our new plants, and operating expenses were reduced through modernization. As a result, our earnings after preferred dividends amounted to \$3.26 a common share, up 20% from \$2.71 a share the year before.

### Financial Highlights

	1958	1957
Net Sales .....	\$53,059,882	\$47,750,482
Net income* .....	8,742,434	7,306,933
Earned per common share .....	3.26	2.71
Common shares ..	2,625,000	2,625,000
Common dividends		
Total for the year .	1.50	1.40
Annual rate		
at year end ....	1.60	1.40

\*Not including possible tax savings from expanded depletion allowances.

Copies of our Annual Report for the fiscal year ended December 31, 1958, are available upon request. Write to Director of Public Relations, Marquette Cement Manufacturing Company, 20 North Wacker Drive, Chicago, Illinois.



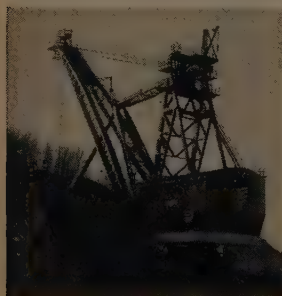
# Marquette Cement Manufacturing Company

Executive offices: 20 North Wacker Drive, Chicago, Illinois

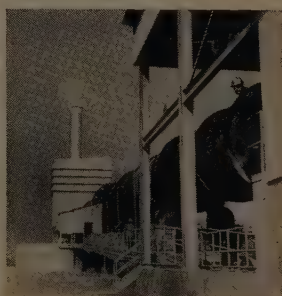
Operating ten cement producing plants in Illinois, Iowa, Ohio, Missouri, Georgia, Tennessee, Mississippi and Wisconsin

**Annual capacity 16,620,000 barrels**

**Superior, Ohio**—Huge electric stripping shovel has a 160 foot boom, the longest in the world, for increased efficiency in our quarry operations.



**Nashville, Tenn.**—This new 400 ft. kiln, part of cost-saving improvements and replacements here, reduces fuel consumption about 35 per cent.



**Rockmart, Georgia**—New combined raw and finish mill showing framework rising around new mill, as bottom of separator is guided into position.



**Cape Girardeau, Missouri**—Railroad car can be loaded with cement and weighed in 19 minutes with the help of these modern bulk loading facilities.



# Index to the Analysts Journal for 1958

Compiled by Francis J. Calkins

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*Francis J. Calkins is professor of finance at Marquette University. He prepared the cumulative index of Analyst Journal articles (1945-56), as well as the 1957 index, and he now brings the index up-to-date with the 1958 articles and authors.*

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# BRITISH COLUMBIA POWER CORPORATION, LIMITED and Subsidiary Companies CONSOLIDATED STATEMENT OF INCOME for the Year Ended 31 December 1958 (with corresponding figures for the year ended 31 December 1957)

	1958	1957
Gross revenue from operations.....	\$83,273,363	\$74,594,413
Deduct—		
Employment costs, materials and outside services, etc.....	\$34,438,222	\$31,935,410
Provision for depreciation.....	12,776,621	9,966,812
Required for government:		
Provision for taxes on income.....	7,338,355	8,525,365
Property taxes.....	4,129,457	3,225,487
Other charges.....	1,111,887	997,257
Total operating expenses.....	\$59,794,542	\$54,650,331
Operating income.....	\$23,478,821	\$19,944,082
Add—		
Non-operating income:		
Return from temporary and other investments.....	1,113,082	1,462,597
Profit through redemption of bonds at less than principal amount.....	347,487	70,463
Interest charged to construction.....	2,898,903	2,827,610
	\$27,838,293	\$24,304,752
Deduct—		
Interest on long term debt.....	13,292,422	9,924,489
Amortization of discount and expense on long term debt.....	655,280	588,049
Minority interest in earnings of a subsidiary.....	12,648	—
Net income for the year.....	\$13,877,943	\$13,792,214
Deduct—		
Dividends on shares of subsidiaries owned by the public:		
British Columbia Electric Company Limited.....	4,952,136	4,160,136
British Columbia Electric Railway Company Limited.....	49,324	49,480
Earnings for the year on Common Shares of parent company:		
Amount.....	\$ 8,876,483	\$ 9,582,598
Per share on 4,549,431 shares (1957—4,115,880 shares) outstanding at year-end.....	\$1.95	\$2.33

# CONSOLIDATED STATEMENT OF EARNINGS EMPLOYED IN THE BUSINESS for the Year Ended 31 December 1958 (with corresponding figures for the year ended 31 December 1957)

	1958	1957
As at the beginning of the year.....	\$18,172,376	\$15,260,925
Add—		
Earnings on Common Shares of parent company per consolidated statement of income.....	8,876,483	9,582,598
	\$27,048,859	\$24,843,523
Deduct—		
Commission and expenses on issue of Cumulative Redeemable Preferred Shares of British Columbia Electric Company Limited.....	—	1,021,445
Commission and expenses (1957—expenses only) on issue of Common Shares of parent company and of British Columbia Electric Company Limited (1957—parent company only).....	459,703	33,330
	\$26,589,156	\$23,788,748
Deduct—		
Dividends on Common Shares of parent company.....	6,223,944	5,616,372
As at the end of the year.....	\$20,365,212	\$18,172,376

Copies of the complete Annual Report may be obtained by writing to British Columbia Power Corporation, Limited, 970 Burrard Street, Vancouver 1, B.C.



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- Pinney, Alexander. Gold—A Split Personality. XIV, May '58, 29-32.

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- Hayes, Douglas A. Evaluating the Investment Management Record of Fire Insurance Companies. XIV, Aug. '58, 57-59.

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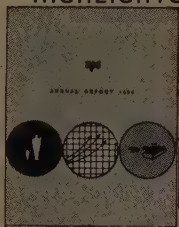
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# SPS REPORTS ON 1958

1958 was a year of continuing growth and progress which has characterized Standard Pressed Steel's history, especially in recent years. Our sales reached an all-time record total of \$64.8 million. Cash earnings of \$8.8 million were highest in company's history. Net profit amounted to \$3.8 million versus \$4.8 million in 1957. The cash dividend was increased and a 5% stock dividend paid in December, increasing the number of shares outstanding from 2,294,959 to 2,410,379. The Company's competitive position was strengthened by purchase of the National Machine Products Company of Utica, Mich., by completion of plants at Santa Ana, Calif., and Sheffield, England, and the opening of three research laboratories.

## HIGHLIGHTS FROM SPS 1958 ANNUAL REPORT

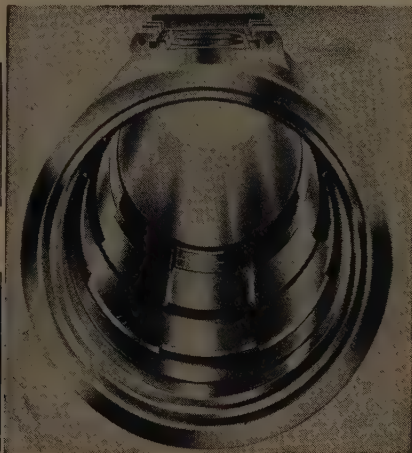


	1958	1957
Sales	\$64,754,497	\$61,740,233
Net Earnings	3,806,203	4,803,996
Earnings Per Share	1.58	1.99
Cash Dividends	734,387	610,751
Working Capital	17,558,172	13,386,265
Shareholders' Equity	43,382,852	40,296,674
Long Term Debt	12,905,463	6,600,000
Plants & Equipment—Net	36,621,300	31,284,762

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### Solar Energy

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### Valuation—Securities

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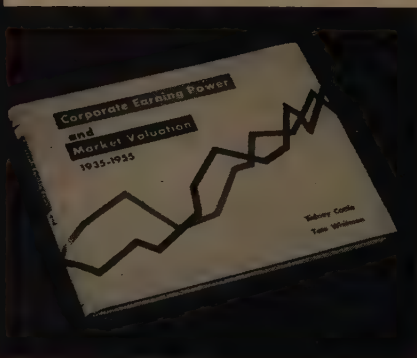
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### ARMOUR AND COMPANY

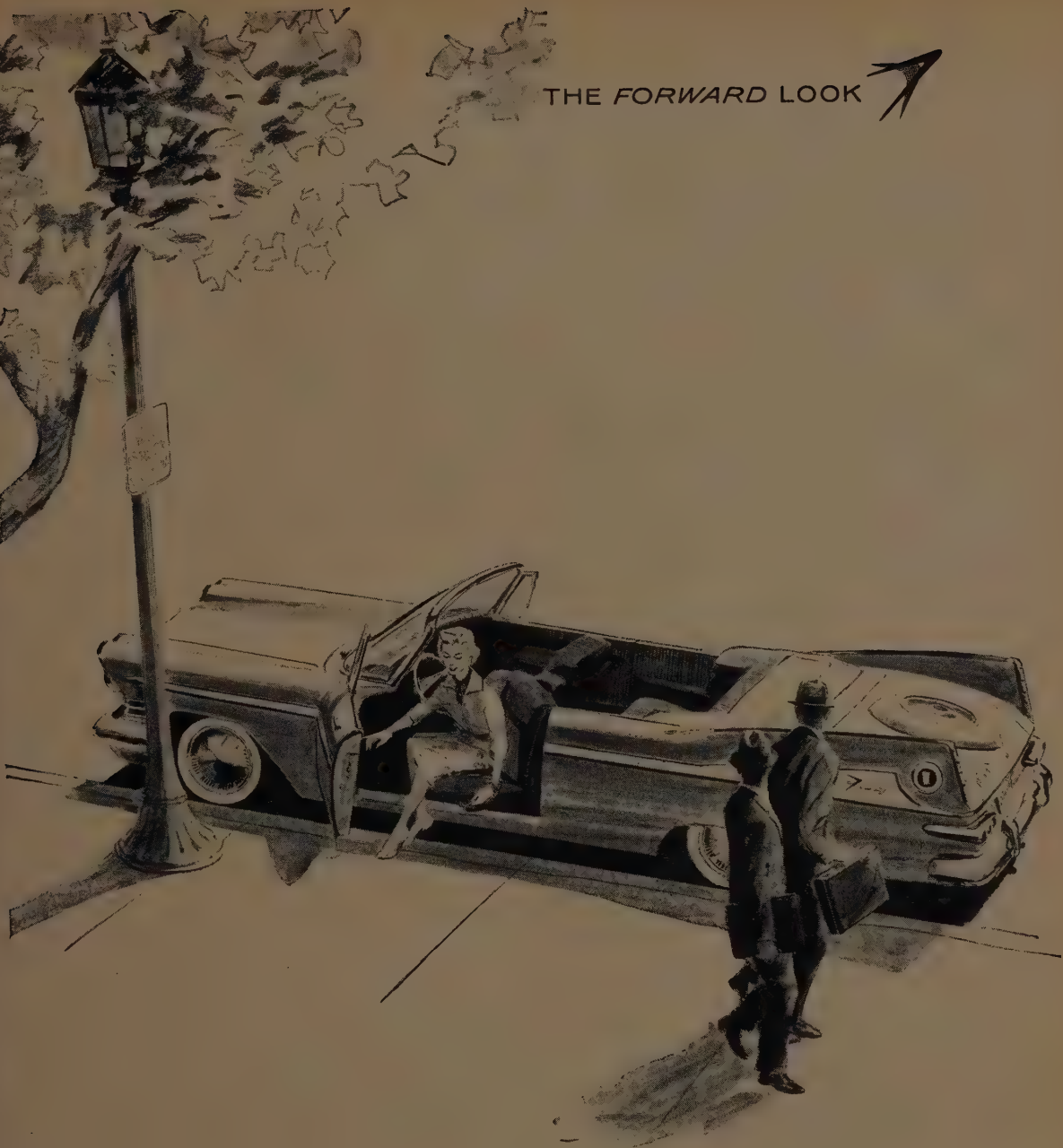
By: John Schmidt

Financial Vice President

March 2, 1959



THE FORWARD LOOK



New twist turns buyers toward The Forward Look. Swivel seats, introduced exclusively in '59 Chrysler Corporation cars, are this year's most talked about new feature. Always a leader in engineering, we're proud of many "firsts." To name a few: The high-compression engine, 4-wheel hydraulic brakes, power brakes, full-time power steering, modern pushbutton driving and Torsion-Aire Ride. You get the good things first from Chrysler Corporation.

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## QUICK FACTS—1958

	Amount	Per Cent Increase Over 1957
Net Income for Common Stock	\$ 6,424,342	8
Per Share of Common Stock	\$1.97	8
Per Cent of Operating Revenues	22.4	2
Dividend Rate Per Share at End of Year	\$1.44	6
Gross Additions to Utility Plant	33,328,521	15
Kilowatt-hour Sales (in thousands)	2,381,562	6
Peak Load—Kilowatts	601,000	14
Customers at End of Year	207,432	4
Average Annual Kilowatt- Hour Use Per Residential Customer	7,840	3

**C**ONSTANTLY expanding use and new applications make electric power increasingly indispensable to the more abundant life and our national economy and security. When this concept is adhered to under a system which respects the dignity, worth and freedom of every person, then we know we are succeeding in the vital task of satisfying human wants. To this Puget is dedicated.

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## BOOK REVIEWS

**A PRIMER FOR PROFIT IN THE STOCK MARKET.** By Harry Kahn, Jr. 239 pp. Garden City, N. Y.: Doubleday & Co., Inc. \$3.95.

Here's an excellent book for the ever-growing army of investors who are either buying common stock for the first time, or who are contemplating this action.

Analysts and investment counselors will do well to recommend this book to their uninitiated clients. And certainly colleges and universities should use this as a text where the intricacies of finance are being taught.

The author, Harry Kahn, Jr., is a member of *The Washington Society of Investment Analysts*, and resident partner of Bache & Co.'s Capital office.

Commenting on the modern broker, Author Kahn says that such a broker "may be a trained economic Analyst, possibly a member of his city's Society of Investment Analysts." And he adds: "Membership in such a Society is a very valuable asset for any broker."

As for fools who rush in—in frantic search of a fast buck—"where angels fear to trade," the author recommends any race track's \$2 window, rather than a "flyer" in the stock market.

**FASTER READING FOR BUSINESS.** By George D. Spache and Paul C. Berg. 298 pp. New York: Thomas Y. Crowell Co. \$3.95.

Learning new methods of faster reading will never be dull to those of us who daily face "that pile" of newspapers, business and/or trade periodicals, reports, correspondence, studies and new books—even book reviews.

And now to aid us in this goal is the book "Faster Reading for Business," authored by two Ph.D.'s who have, for many years, directed reading clinics. They are: George D. Spache and Paul C. Berg.

In reading this book we particularly liked the authors' comments on "Previewing—a New Way to Read." Actually this can be boiled down to just this: take a quick look at everything in "that pile" and decide what you can safely ignore; what you should quickly

peruse (at a later date); what you must, perforce, study; and what you should attend to right now.

"There is one caution to be observed in using previewing," the authors state. "Avoid the tendency to preview too rapidly. Speed is achieved in previewing by the selective, organized approach in which only the most important portions are read—not by very rapid reading. Comprehension is achieved only by careful reading of the selected portions." In short, the object of previewing is to determine whether the material justifies more careful reading, or what is it all about.

Here's a book that permits you to judge for yourself whether or not you've gained anything from its pages. The "insight" is gained by way of general tests to determine how much you have improved your reading skills and how much you're retaining of what you need.

Moreover, each chapter may be read at half-hour sessions, though some of the tests may take longer. Thus, each portion forms a complete self-contained unit that can be explored in an interval of time readily accessible to most business people.

"Faster Reading for Business" deserves a place on the desk (but preferably in the home) of everyone who makes a living from the printed word.

**GOLD.** By Franz Pick. 32pp. New York: Pick Publishing Corp. \$25.

Diamonds may continue to be "a girl's best friend," but to the vast majority of the security-seeking population the most familiar symbol of wealth will continue to be gold.

Gold, the acquisition of which is either a legendary dream or (if you're fortunate enough) it's an actuality. But keep it in coins or bars, says Franz Pick, author of a most interesting study of that metallic element: "Gold: How and Where to Buy and Hold It."

And unless you can provide an unusually safe vault for your hoarding of gold dust, gold bars and/or gold coins (an atomic bomb will melt any gold beyond resale value), then gold certificates are an excellent form of in-

direct gold ownership. In Canada, gold certificates are available on the installment plan, with small down payments.

The author, in pointing out that the purpose of his study "is to clarify the rather complicated components of hedging operations against an eventual devaluation of the Dollar," observes that even sophisticated American investors, investment counselors and bankers know very little about "gold futures."

And this lack of knowledge, says the author, may be accountable due to a highly-restricted form of trade—particularly among Western European gold dealers and banks.

Speculative interest in this much-desired yellow metal, encompassing all its forms—from gold dust to the purchase of gold futures—has risen to rather unexpected levels, the author says, adding that gold hoarding has increased substantially in the United States since 1958.

This metallic study is broken into two general categories: *Real Gold*—gold dust, gold coins, gold bars and gold ornaments; and *Paper Gold*—gold certificates, contracts of gold for future delivery, and shares or stock of gold mining companies.

If gold is your goal then "Gold" is your book—for \$25 (silver certificates accepted).

(*Editor's Note:* Of passing interest, the London Economist estimates that the free world's stock of gold amounts to \$39.5 billion. In 1949 the United States had a corner on 70%.)

**SPECIAL STUDY ON COMMUNISTIC TACTICS.** Prepared by American Bar Association. Costs: from 20c to 12c per copy; see below.

Complacency in the Western World is still Russia's most valued asset in the continuing cold war.

And ever since Secretary Dulles, early this year, urged President Eisenhower to read Overstreet's "What We Must Know about Communism," there has been a "revival" of interest in the greatest long-term threat to the free-enterprise capitalistic system.

Now the American Bar Association has made available a highly readable and brief pamphlet in the form of a "Supplemental Report of the Special Committee on Communist Tactics, Strategy, and Objectives."

In this pamphlet the ABA points out that "for those who want to understand Communism, we prescribe, not a 15-day trip to Russia, but 15 days



in a library studying the Communist conspiracy." Significantly enough, the Communist master plan for world conquest has been set forth more forthrightly than did Hitler in "Mein Kampf." Communism's master-planner Lenin said:

"First we take Eastern Europe, then the masses of Asia, then we will encircle the United States, which will be the last bastion of capitalism. We will not have to attack. It will fall like overripe fruit into our hands."

In the last 25 years the United States and Russia have negotiated 52 major agreements, and Soviet Russia has broken 50 of them. The Communists have followed Lenin's dictum about treaties and agreements: "Promises are like pie crusts—made to be broken."

Copies of ABA's 21-page booklet are available in quantities of 1-99 for 20c each; in quantities of 100-999 for 15c each; and in quantities of 1,000 or more for 12c each. For copies, write American Opinion, Belmont 78, Massachusetts.

**OPERATIONS RESEARCH** (for Industrial Management). By Dr. Dimitris N. Chorafas. New York: Reinhold Publishing Corp. 303 pp. \$8.75.

**HIGH-SPEED MATH.** By Lester Meyers. Toronto-London-New York: D. Van Nostrand Co., Inc. 554 pp. \$6.95.

Here are two excellent books in the field of mathematics, and in some ways it might seem that one is a "companion" of the other.

At any rate, "High-Speed Math," a reissued book, requires no more than a basic understanding of arithmetic ( $2+2$  will do). And from there the author leads us on to some of the simple shortcuts—like using division by four to accomplish multiplication by 25, or, say, how to multiply quickly and easily by  $68\frac{1}{2}$ , 79,  $89\frac{1}{2}$ . And then the author advances us to the point of how to square numbers ending in 5; how to quickly approximate percent rates without the use of pencil and paper; and scores of other easy methods of handling figures. As the publisher's foreword states: "More and more, the operations of modern industry require closer control and faster analysis."

As for "Operations Research," the reader would do well to have a solid understanding of mathematics, philosophy, science, engineering and management—even to understand the in-

roduction. This is a book for the highly-specialized person who is already familiar with research techniques. We will accept the publisher's word that the book "includes sufficient description of the details of game theory, linear programming, simulation theory, flow techniques, and matrix algebra to be of the greatest interest to systems engineers, computer technologists and others interested in applications of research and analysis to business and industrial problems."

**A STUDY IN LIQUIDITY.** By William A. Payton, Jr. 173 pp. Ann Arbor, Mich.: University of Michigan. \$5.

Considering a 12-year span, 1940-'52, as "a period of sharp and almost continuous inflation in the United States," (during which time the dollar dropped to approximately 50c), the author draws some penetrating conclusions about corporate finance.

Buttressing these conclusions are tables of 52 companies, illustrating short-term monetary items; and another 21 companies are analyzed to demonstrate the impact of inflation on long-term debt.

The author concludes that his study "amply demonstrates the fact that the impact of inflation upon the monetary items of business enterprises is a major phenomenon, and that this phenomenon should be more widely recognized and more carefully appraised by corporate accountants and managers."

**WORK MEASUREMENT.** By Virgil H. Rotroff. 203 pp. New York: Reinhold Publishing Corp. London: Chapman & Hall, Ltd. \$4.85.

Here's another book in the "Reinhold Management Science Series." (See *The Analysts Journal*, November 1958 for review of the first book in this series.)

In this book management is acquainted with work measurement, its benefits and procedures. The purpose of the book is to present the fundamental principles and techniques of work measurement and their practical application to current industrial problems. Time study for work measurement comes in for discussion, as well as the consultant's role in work measurement.

**APPRAISAL SURVEY** (Petroleum Industry). New York: John S. Herold, Inc. \$65 per year.

This is a subscription service comprised of brief individual appraisal reports and associated comparative tables covering more than 100 oil and gas companies each year. Each report gives a concise appraisal of a company's various properties and assets, including its oil and gas reserves; summarizes its past operations and earnings; and traces its market price history in terms of earning power and appraised worth.

## Some Re-Reviews

**THE BATTLE FOR INVESTMENT SURVIVAL.** By G. M. Loeb. New York: Simon & Schuster. 311 pp. \$3.95.

**MAKING PROFITS IN THE STOCK MARKET.** By Jacob O. Kamm. Cleveland-New York: The World Publishing Co. 185 pp. \$3.50.

**FINANCIAL INDEPENDENCE THROUGH COMMON STOCKS.** By Robert D. Merritt. New York: Simon & Schuster. 309 pp. \$3.95.

**INVESTMENT ANALYSIS.** By John H. Prime. Englewood Cliff, N. J.: Prentice Hall, Inc. 495 pp. \$6.95.

Like a theatre critic who has written a rave review for a play which turns out to be a smash hit, and then returns a year later to re-discover why he liked the work so much in the first place, we recently looked over our shelves of financial books with the thought of which have stood the test of time.

Sure enough, we "re-discovered" at

## Pullman Incorporated

— 390th Dividend —

93rd Consecutive Year of  
Quarterly Cash Dividends

A quarterly dividend of seventy-five cents (75¢) per share will be paid on March 14, 1959, to stockholders of record March 2, 1959.

CHAMP CARRY  
President



least four such books; namely: G. M. Loeb's "Battle for Investment Survival"; Jacob O. Kamm's "Making Profits in the Stock Market"; Robert D. Merritt's "Financial Independence through Common Stocks"; and John H. Prime's "Investment Analysis." The last three books are in revised and enlarged editions.

Knowing that Author Loeb is a member of *The New York Society of Security Analysts* (and a neighbor) we dropped in at his office for a brief interview—an interview which resulted in a joust of ideas and sent us back to his sage observations in "The Battle for Investment Survival" for another look.

Here is a book which is selling as well today as it did when it was published two years ago. The contents are just as lively and just as topical. The chapters present no egghead-theory approaches, dispell any aura of mystery in the country's Wall Streets, and clearly demonstrate, again, how a hard-headed approach has outwitted the Bulls and the Bears in an area where calculated risks are always an occupational hazard. The book is still an excellent buy.

Author Kamm's name strikes a bell both in the academic and business fields. His "Decentralization of Securities Exchanges" and "Economics of Investment" have been adopted in leading universities as college texts. And as president of the Cleveland Quarries Co. he became even better known. While his revised edition of "Making Profits in the Stock Market" is still aimed primarily at the stock market "amateur," there's food for even the seasoned investor who knows by experience that investing is a difficult and often tricky business. His remarks on graphs and "The Art of Hedging" are of particular interest.

Author Merritt, who is financial editor of *United Business Service*, and a member of *The Boston Security Analysis Society*, speaks as one with years of experience in the management of a New England trust company. In his revised and enlarged edition of "Financial Independence Through Common Stocks," his thesis may be summed up in the many detailed, varied, and practical observations to the oft-repeated question: Where shall I invest?

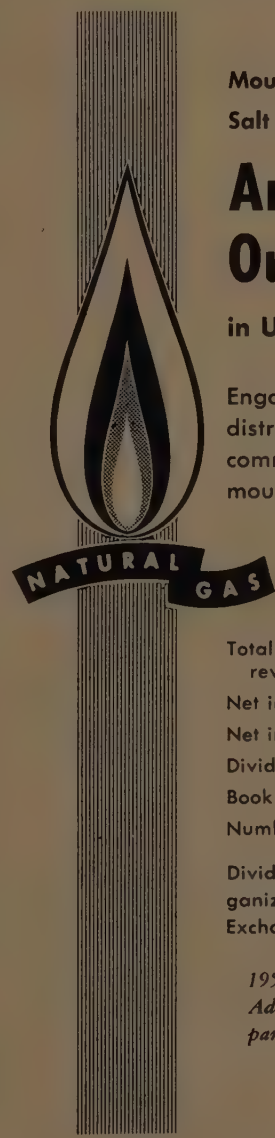
To mention a few fields of thought which this expert covers, there are chapters on "Getting the Best Mileage from Your Dollars"; "Investment Diversification—Why and How Much?"; "Ways of Limiting Risks"; "How to

Select Growth Stocks"; "Inflation and What to Do About It"; "What Is a Stock Worth?"; "How to Read an Annual Report"; "'Cashing In' on Population Growth"; "Opportunities in Bonds and Preferred Stocks"; and "Convertible Bonds."

The third edition of "Investment Analysis," by Dr. Prime, a member of *The New York Society of Security An-*

*alysts*, reflects all the latest dynamic changes in investment analysis. A more direct approach to the analysis of bonds, preferred stock and common stock is a feature of this new edition. Expanded material is presented on working capital, plus sources and application of funds analysis, as well as a discussion of "dollar averaging" in the purchase of securities.

—WARREN BURNS



**Mountain Fuel Supply Company,  
Salt Lake City, Utah, reports:**

# Another Year of Outstanding Growth

in Utah-Wyoming Area

Engaged in the production, transmission and distribution of Natural Gas now serving 82 communities in the rapidly expanding inter-mountain region.

## Highlights of 1958 (and comparison with 1957)

	1958	1957
Total gas operating revenues .....	\$26,088,644	\$25,160,075
Net income .....	\$ 3,438,800	\$ 3,754,434
Net income per share ....	\$ 1.57	\$ 1.72
Dividends per share ....	\$ 1.20	\$ 1.20
Book value per share ....	\$ 18.87	\$ 18.50
Number of customers ....	155,444	144,341

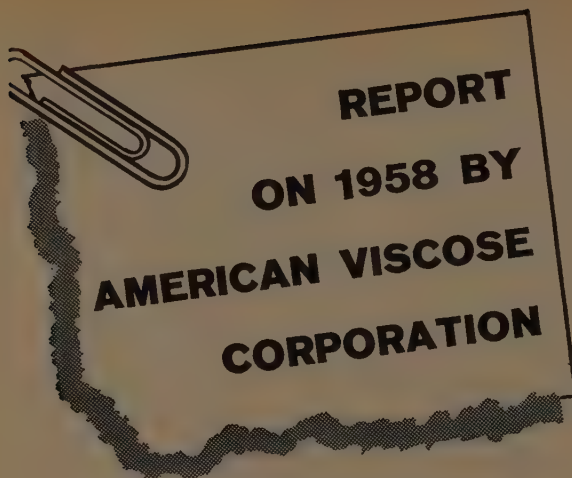
Dividends have been paid each year since its organization in 1935. Listed on Pittsburgh Stock Exchange.

*1958 Annual Report will be sent upon request.  
Address: Secretary, Mountain Fuel Supply Company, P. O. Box 989, Salt Lake City 10, Utah.*

# Mountain Fuel Supply Company

180 East First South

Salt Lake City 10, Utah



# REPORT ON 1958 BY AMERICAN VISCOSE CORPORATION

The net earnings of American Viscose Corporation and its equity in those of 50 per cent owned companies in 1958 amounted to \$14,459,000 or \$2.83 per share as compared with \$18,369,000 or \$3.60 per share for 1957.

Earnings from American Viscose's own operations were \$1.36 per share, including Chemstrand's first dividend, compared with \$1.65 in 1957. These earnings were depressed by non-recurring expenses equal to \$.21 per share incident to closing the Roanoke rayon textile yarn plant. Sales declined about 5% to \$217 million from \$228 million in 1957.

During the year a significant change took place. Earnings during the first six months were sharply decreased by a recession which affected our primary markets. One was the decline in the production of automobiles: 4,200,000, compared with 6,100,000 for 1957; another was a slowdown in home-furnishing and redecorating both of which normally demand huge quantities of Avisco fibers.

But earnings rallied sharply in the last six months of 1958, so strongly that records were posted by the companies in which we have a 50% ownership—The Chemstrand Corporation and Ketchikan Pulp Company. And this high rate is continuing in 1959.

## RECORD CELLOPHANE YEAR

During 1958 the Corporation sold the greatest volume of cellophane in its history; most of it used by the packaging industry. The introduction in 1958 of a new polymer coated cellophane for wrapping fresh meats was successful beyond all expectations.

## NEW PRODUCTS KEY FUTURE

New and improved products were brought forth in 1958. These are looked upon with confidence as insurance for the future.

\* Tyrex is the certification mark of Tyrex Inc. for viscose tire yarn and cord.

\*\* Cotron is the trademark of AVC for fabrics made of cotton and Avisco rayon.

## TYREX<sup>®</sup> VISCOSE TIRE YARN

The most newsworthy development was Tyrex viscose tire yarn, a joint development of the cellulosic tire yarn producers. This outstanding product is receiving wide and favorable publicity and is being vigorously promoted. Tires made with Tyrex viscose cord are used on almost all of the 1959 model automobiles.

## COTRON<sup>™</sup>

Another important development was the introduction of Cotron, a blend of cotton and rayon fibers.

## MOUNTING INDUSTRIAL USES

While ever-changing apparel styles have caused some decrease in the consumption of rayon textile yarn, the Corporation has accelerated the development and marketing of fibers in other areas. New uses which hold great promise for rayon staple and yarns now loom. One important one is reinforcement of paper. Rayon fabrics are also being used to reinforce plastics and rubber. Medical and surgical goods are consuming large quantities of rayon staple.

## SOUND EXPANSION AND IMPROVEMENT

American Viscose expended over \$18 million for plant additions, replacements and modernization in 1958, including the construction of Marcus Hook cellophane facilities.

Chemstrand expended \$11.4 million for new plant and equipment in the United States and advanced \$8 million to Chemstrand, Limited. In December Chemstrand paid its first dividend of \$5 million and also made payments of \$16.5 million in reducing its First Mortgage bonds, its term loans and its subordinated notes.

Concurrently with the improvement of the rayon business in the last half of 1958 Ketchikan's production of wood pulp was increased to its full capacity rate of 175,000 tons per year.

### The Corporation's earnings for 1958 and its equity in the earnings of associated companies were:

American Viscose Corporation	1958	1957
Net Sales	\$217,000,000	\$227,600,000
Net Earnings	6,900,000(a)	8,400,000
Per Share		
Net Earnings	1.36(a)	1.65
Dividends Paid	1.50	2.00
Equity in Chemstrand and Ketchikan		
Net Earnings	\$ 9,800,000	\$ 10,000,000
Per American Viscose Share	1.92	1.95
Combined earnings of American Viscose and equity in earnings of Chemstrand and Ketchikan	2.83	3.60

(a) Includes Chemstrand dividend amounting to \$2,305,000 or \$.45 per share after taxes.

American Viscose paid dividends of \$7,644,000 to shareholders in 1958 at \$1.50 per share. At December 31, 1958, there were 5,096,491 capital shares outstanding owned by approximately 24,000 shareholders.

# AMERICAN VISCOSE CORPORATION

1617 PENNSYLVANIA BLVD., PHILADELPHIA, PA.

**AVISCO**



## FEDERAL

FEDERAL PAPER BOARD CO., Inc.

### Common & Preferred Dividends:

The Board of Directors of Federal Paper Board Company, Inc. has this day, declared the following quarterly dividends:

50¢ per share on Common Stock.

28 3/4¢ per share on the 4.6% Cumulative Preferred Stock.

Common Stock dividends are payable April 15, 1959 to stockholders of record at the close of business March 27, 1959.

Dividends on the 4.6% Cumulative \$25 par value Preferred Stock are payable June 15, 1959 to stockholders of record May 28, 1959.

ROBERT A. WALLACE  
Vice President and Secretary  
March 17, 1959  
Bogota, New Jersey

## REGULAR QUARTERLY DIVIDEND

The Board of Directors has declared this day

### COMMON STOCK DIVIDEND NO. 99

This is a regular quarterly dividend of

**25¢ PER SHARE**

Payable on May 15, 1959 to holders of record at close of business April 1, 1959

Milton C. Baldridge  
Secretary  
March 5, 1959

**THE COLUMBIA  
GAS SYSTEM, INC.**

## SEABOARD FINANCE COMPANY

### COMMON STOCK DIVIDEND

The Board of Directors of Seaboard Finance Company declared a 2% stock dividend on Common Stock, payable May 11, 1959, to stockholders of record April 9, 1959.

### 96th Consecutive Quarterly Payment

The Directors also declared a regular quarterly dividend of 25 cents a share on Common Stock, payable April 10, 1959, to stockholders of record March 19, 1959.

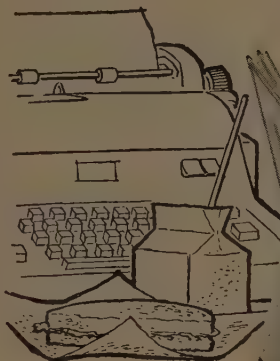
### PREFERRED STOCK DIVIDENDS

The Directors also declared regular quarterly dividends of \$1.18% on the \$4.75 Sinking Fund Preferred Stock, \$1.25 on the \$5.00 Sinking Fund Preferred Stock, \$1.25 on the \$5.00 Convertible Preferred Stock, Series A and B, all payable April 10, 1959, to stockholders of record March 19, 1959.

EDWARD L. JOHNSON  
January 22, 1959 Secretary

## Some say it's impossible

...to write an annual report that will be clear and interesting to this → stockholder...



...and have it satisfy this one, too. ↓



Maybe so, but we think we've come mighty close!

The Dayton Power and Light Company reviews the year in a far-from-dull manner for stockholders in 47 states and several foreign countries (keeping in mind the fact that DP&L women stockholders outnumber the men). Those who want statistics will find all pertinent facts about the

Company instantly available in a convenient, easy-to-read form. A novel feature of this issue is a folded map-in-a-pocket that gives a clear picture of the prosperous 24-county area of West-Central Ohio served by DP&L. The coupon below will bring your copy of DP&L's 1958 report.



Send for your free copy

**The Dayton Power and Light Company**  
25 North Main Street, Dayton 1, Ohio

Please send me a copy of your 1958 Annual Report.

AJ 559

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_

ZONE \_\_\_\_\_ STATE \_\_\_\_\_

# 1958 ANNUAL REPORT

## STANDARD OIL COMPANY (INDIANA) AND SUBSIDIARIES

# EFFICIENCY RISES; COSTS CUT

**MANUFACTURING.** Emphasis continues to be placed on quality improvement. We are well on the way to achieving our objective of reducing operating costs while continuing to improve the quality of our products. For example, scheduled for completion in May, 1959, is a 140,000-barrel-per-day crude distillation unit which will replace nine smaller, obsolete units at an important cost saving in operation. Our new petrochemical plant at Joliet, Illinois, was essentially completed in 1958.

**MARKETING.** The company achieved excellent results through reseller channels, particularly in the sales of premium gasolines. Sales through service stations and other retail outlets increased about 5%, exceeding the industry pattern. For the year, our total volume of product sales declined 2.5%, largely the result of lowered industrial demand for residual fuels and the dropping of marginal commercial accounts.

**PRODUCTION.** A number of promising fields were opened in this country and Canada by Pan American Petroleum Corporation. Among these were the Swan Hills area of Alberta, Canada. Net domestic production of crude oil and natural gas liquids declined 6.7% in 1958, due largely to restrictions on production by state agencies. Net natural gas production increased slightly—to 1.35 billion cubic feet daily. Our crude oil, natural gas liquids and natural gas reserve position showed continued growth.

**INTERNATIONAL.** Emphasis on foreign oil exploration and development was increased substantially with the formation of a new subsidiary, Pan American International Oil Company. International's overseas activities now encompass seven continents on four continents. A second new subsidiary—Amoco Trading Corporation—was formed in 1958 to handle international crude oil marketing activities.

**RESEARCH** was responsible for several important improvements during 1958. Our research scientists engaged in a wide range of petrochemical studies. We have developed a strong patent position in methods of producing thermoplastics and organic intermediates. We also have developed a new drilling technique, based on a modification of an air-driven quarry type drill.

**NET WORTH AND FINANCING.** Net worth at the end of 1958 stood at \$2,076,900,000—the highest in Company history. Book value per share increased to \$58.06 in 1958 from \$56.26 in 1957. During the year, the Company sold \$200 million principal amount of 4½% Debentures, due October 1, 1983. At year end total borrowings amounted to \$467.5 million, equal to 17% of total assets.

**DIVIDENDS.** In line with our policy of paying dividends equal to approximately one-half of our earnings, regular cash dividends were supplemented in the fourth quarter with a special dividend in Standard Oil Company (New Jersey) stock. Dividends paid, including the value of the Standard Oil Company (New Jersey) stock on date of distribution, amounted to \$1.687 per share. We have paid dividends for 65 consecutive years.

### THE STORY IN FIGURES

FINANCIAL:	1958	1957
Total income.....	\$1,882,441,000	2,029,689,000
Net earnings.....	\$ 117,775,000	151,509,000
Net earnings per average outstanding share.....	\$ 3.29	4.27
Dividends paid*.....	\$ 53,197,000	56,302,000
Dividends paid per share*.....	\$ 1.687	2.110
Earnings retained in the business.....	\$ 64,578,000	95,207,000
Capital expenditures.....	\$ 270,387,000	340,274,000
Total assets.....	\$2,769,317,000	2,535,023,000
Net worth.....	\$2,076,853,000	2,012,260,000
Book value per share.....	\$ 58.06	56.26
<b>PRODUCTION:</b>		
Crude oil and natural gas liquids, barrels per day, net.....	285,474	307,500
Natural gas, thousand cubic feet per day, net.....	1,347,590	1,298,158
Oil wells owned, net (year end).....	10,872	10,722
Gas wells owned, net (year end).....	2,193	2,085
<b>MANUFACTURING:</b>		
Crude oil and natural gas liquids, etc., processed, barrels per day.....	640,648	648,076
Crude running capacity, barrels per day (year end).....	691,800	714,000
<b>MARKETING:</b>		
Refined products sold, barrels per day.....	645,745	662,676
Retail outlets served.....	29,032	29,874
Natural gas sold, thousand cubic feet per day.....	1,422,498	1,391,315
Crude oil sold, barrels per day.....	277,183	341,594
<b>TRANSPORTATION:</b>		
Pipelines built, miles.....	281	175
Pipelines owned, miles (year end).....	17,568	17,366
Pipeline traffic, million barrel miles.....	152,796	156,451
Tanker and barge traffic, million barrel miles.....	93,710	86,125
<b>PEOPLE:</b>		
Stockholders (year end).....	151,937	148,375
Employees (year end).....	46,033	49,678
Wages and benefits.....	\$ 352,469,000	370,128,000

\*Dividends paid\* include the value on this Company's books of the Standard Oil Company (New Jersey) stock distributed as a dividend. \*Dividends paid per share\* include the market value of the Jersey stock on date of distribution.



### STANDARD OIL COMPANY

910 SOUTH MICHIGAN AVENUE, CHICAGO 80, ILLINOIS

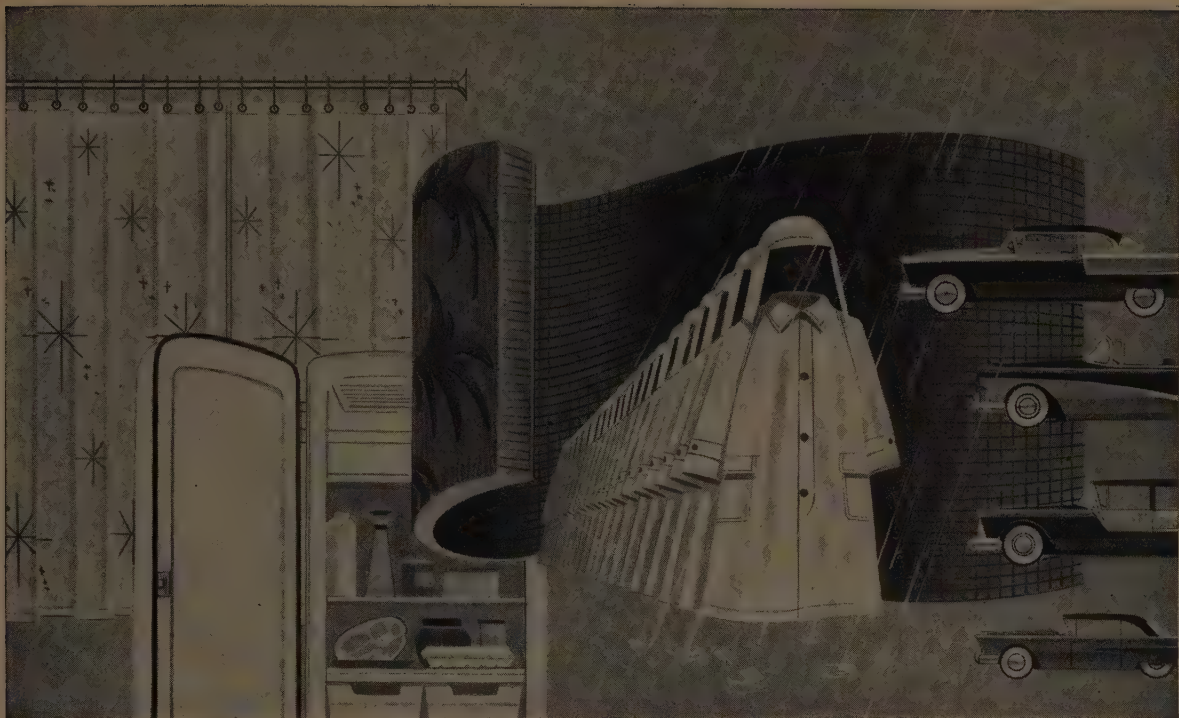
Please send me a copy of the Standard Oil Company (Indiana) 1958 Annual Report.

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_





# PLASTICS

another multi-billion-dollar industry  
served by **KOPPERS**

**Last year**, plastics production set another new high when 4.4 billion pounds of synthetic resins and celluloses went into plastics. In the next three years, production is expected to increase at least 14 per cent a year as uses for plastics continue to multiply.

**In the home** you may soon see entire translucent roofs, fluorescent ceilings, movable interior wall partitions, and even electric appliances made from plastics.

**In supermarkets** you are now buying tomatoes, ice cream, and cheese, as well as many other foods, in low-cost, disposable plastic containers.

**The building industry** now uses plastics for wall covering, flooring, glazing, paneling. And foamed plastics are used to insulate curtain walls and other types of "sandwich" panels. New jobs for plastics are being found every day.

**Use of plastics** in housewares, toys, packaging, sporting goods, power and hand tools, electric components, and now

missile and rocket parts continues to grow in variety and volume each year. Manufacturers of automobiles, refrigerators, and lighting fixtures are applying plastics more widely.

**Koppers makes many plastics**—rigid and flexible, for molding and extrusion, for films and monofilaments. DYLAN® and SUPER DYLAN® polyethylenes, DURETHENE® polyethylene film, DYLENE®, EVENGLO® and FIBERTUFF® polystyrenes, and DYLLITE® expandable polystyrene will be performing in many of these new applications.

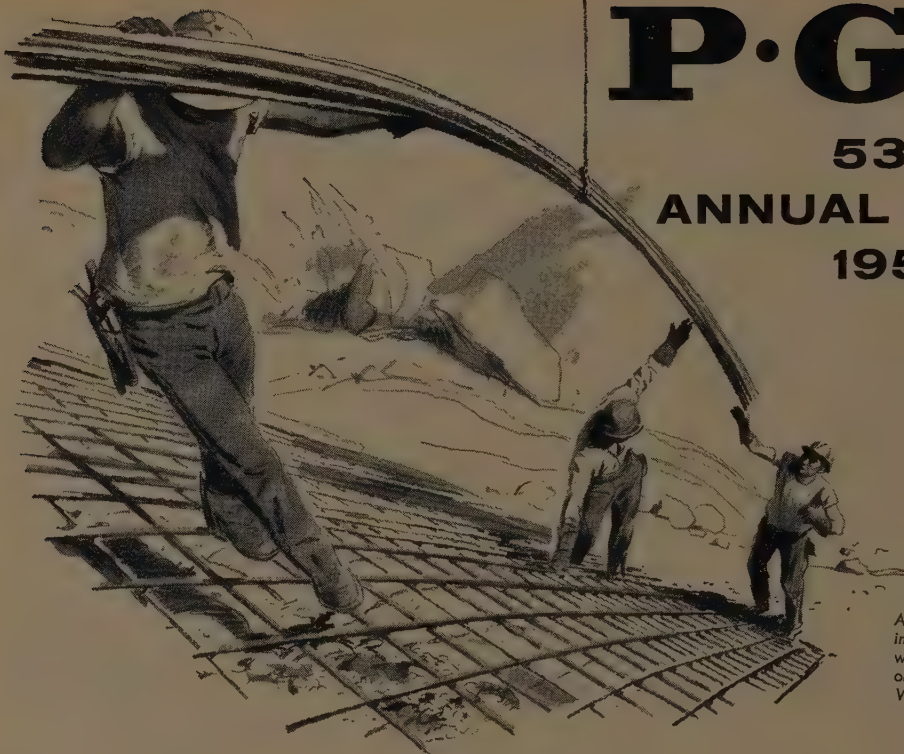
**Koppers Chemicals** also will be contributing to growth in the uses of plastics. They are used in plastics production as antioxidants, light stabilizers, and plasticizers. Koppers Company, Inc., Pittsburgh 19, Pennsylvania.

**Producers of tar products**, chemicals, plastics, wood preserving materials, treated wood, metal products, and dyestuffs . . . designers and builders of steel mills, coke ovens, and chemical plants.



# KOPPERS





# P·G and E·

## 53rd ANNUAL REPORT 1958

At 6,500 feet elevation  
in the High Sierra,  
workmen set reinforcing steel  
on the face of P.G. & E.'s  
Wishon Dam

### REVENUES AND SALES:

Gross operating revenues from all sources reached an all-time high of \$534,778,000 in 1958, an increase of \$33,534,000 or 6.7% over the previous year.

Total unit sales of both the Electric and Gas Departments were substantially the same as in the previous year, which on the surface might appear to indicate that the business recession had a material impact on the Company's business. The fact is, however, that sales in both departments were severely restricted by climatic conditions. Under normal climatic conditions both departments would have shown satisfactory overall gains in sales.

### NET EARNINGS:

Net earnings available for the common stock amounted to \$66,974,000, or \$8.690,000 greater than in the previous year. These earnings were equivalent to \$3.83 a share based on an average of 17,502,415 shares outstanding during the year. This compares with earnings of \$3.41 a share based on the average number of shares outstanding in the previous year.

### DIVIDENDS:

The Board of Directors on December 17, 1958 increased the quarterly dividend rate on the common stock from 60 to 65 cents a share. While applicable to the last quarter of the year, the first dividend at the new rate was not paid until Jan. 15, 1959.

### CONSTRUCTION:

Late in 1958 the two billionth dollar was spent on the Company's postwar program of expansion, and it is expected that about \$156 million will be spent for this purpose in 1959. The proceeds from securities sold to date to finance this program—bonds, preferred and common stocks—have amounted to almost \$1.4 billion.

The principal feature of our construction activities in 1958 was the completion of 685,500 kilowatts of electric generating capacity, consisting of both steam and hydro units. Our installed electric generating capacity now totals 5,219,000 kilowatts in 76 plants.

### GAS SUPPLY:

In 1958 approximately 72% of our total natural gas supply originated from out-of-state sources, principally from fields in Texas and New Mexico.

With a view to obtaining an independently controlled natural gas supply, the Company is continuing its efforts to obtain a permit through its wholly-owned subsidiary, Alberta and Southern Gas Company, Ltd., to export natural gas from the Province of Alberta in Canada.

### NUCLEAR POWER:

Much progress was made during the year toward the goal of producing nuclear power at a cost competitive with conventional

plants. The Company has been actively engaged in this field since 1951, and is now engaged in more nuclear projects than any other electric utility.

While the Company will undoubtedly continue to build conventional electric generating plants for many years to come, recent advances in reactor technology suggests the possibility that competitive nuclear power plants will become a reality much sooner than was thought likely only a few years ago. The Company intends to stay in the forefront of developments in this field.

### OUTLOOK:

Taking a realistic view of the future, it must be recognized that the Company's well-being as a business enterprise will depend largely upon the wisdom with which governmental policies are formulated and administered. Policies calculated to encourage further encroachment by governmental agencies into the commercial power business, or policies that would result in further inflation and erosion of the purchasing power of the dollar, would be harmful not only to investors but to our customers and employees as well. Stockholders are urged to take a strong stand against any such policies and to make their views known to their elected representatives.

FOR THE BOARD OF DIRECTORS

*W. R. Sutherland*

Chairman of the Board

*W. R. Sutherland*

President

## PACIFIC GAS and ELECTRIC COMPANY

245 MARKET STREET, SAN FRANCISCO 6, CALIFORNIA

For more information on this dynamic company write K. C. Christensen, Vice President and Treasurer, 245 Market St., San Francisco 6, for P. G. & E.'s 1958 Annual Report.

# Like Roaring Niagara...

**there's more to  
Cities Service  
than meets the eye!**

Viewed by more than 2,000,000 visitors each year, awesome Niagara Falls is more than a scenic place to honeymoon or test your skill with a camera.

Niagara's thundering waters also provide the low-cost, hydro-electric power that has given birth to one of the greatest industrial areas in the world.

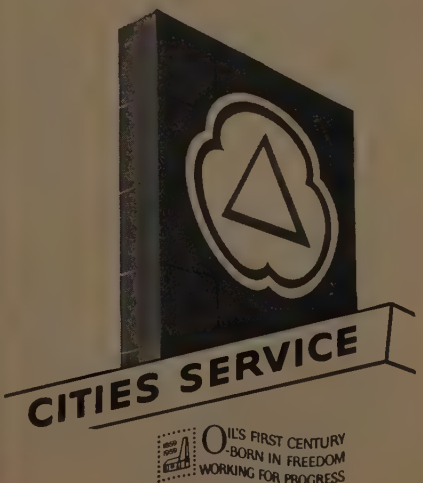
In a sense, oil company operations are like that. Millions of people, for example, quickly recognize the Cities Service emblem and the 19,000 stations this emblem identifies. Few, however, ever see its drilling rigs at work, probing four continents for oil... and no one ever sees its thousands of miles of pipelines.

These, however, are only part of the modern facilities in which Cities Service has already invested a billion dollars. Caring for tomorrow's even greater needs will require further investment. Thus, just in the last two years, Cities Service spent over \$350 million building for the future.

Only in this way can America be given what she must have for progress—more jobs, more and better petroleum products.



Through the low-cost, hydro-electric power created by Niagara's thundering waters, has grown one of the world's leading industrial regions. Niagara also keeps a closely guarded secret—its age. Geologists would like to know, but Lady Niagara isn't talking.







## COMMON STOCK DIVIDEND

The Board of Directors of Central and South West Corporation at its meeting held on April 16, 1959, declared a regular quarterly dividend of forty-five cents (45c) per share on the Corporation's Common Stock. This dividend is payable May 29, 1959, to stockholders of record April 30, 1959.

LEROY J. SCHUERMAN  
Secretary

## CENTRAL AND SOUTH WEST CORPORATION

Wilmington, Delaware

## *Harrison-Walker* Refractories Company

Board of Directors has declared for quarter ending June 30, 1959 DIVIDEND OF ONE and ONE-HALF (1½%) PER CENT or \$1.50 per share on PREFERRED STOCK, payable July 20, 1959 to shareholders of record July 6, 1959. Also declared a DIVIDEND of \$.45 per share on COMMON STOCK, payable June 1, 1959 to shareholders of record May 11, 1959.

G. F. Cronmiller, Jr.  
Vice President and Secretary

Pittsburgh, April 30, 1959

## Allied Chemical Corporation

### DIVIDEND

Quarterly dividend No. 153 of \$.75 per share has been declared on the Common Stock, payable June 10, 1959, to stockholders of record May 15, 1959.

RICHARD F. HANSEN  
Secretary

April 27, 1959



Continuous Cash Dividends Have Been  
Paid Since Organization in 1920

## The UNITED Corporation

The Board of Directors has declared a dividend from Net Investment Income of 10 cents per share on the COMMON STOCK, payable June 12, 1959 to stockholders of record at the close of business May 25, 1959.

WM. M. HICKEY,  
President

April 24, 1959

## UNITED STATES LINES COMPANY

Common  
Stock  
DIVIDEND



The Board of Directors has authorized the payment of a dividend of fifty cents (\$.50) per share payable June 5, 1959, to holders of Common Stock of record May 15, 1959.

WALTER E. FOX, Secretary  
One Broadway, New York 4, N. Y.



## You have to GROW FAST to keep up with THE INDUSTRIAL SOUTHEAST

During 1958, Southern Natural Gas Company inaugurated the greatest expansion program in its history. Our natural gas delivery capacity climbed to about 1.2 billion cubic feet a day. By the end of 1959, we plan to have invested \$100,000,000 for the system expansion program and connection of new gas supplies and to have upped our delivery capacity by 35% to 1.35 billion cubic feet a day.

It takes rapid growth to keep up with the increasing needs of our territory and our customers. For further information on Southern Natural's share in the booming INDUSTRIAL SOUTHEAST. . . Write for your copy of our 1958 Annual Report.



WATTS BUILDING • BIRMINGHAM, ALA.



# Whether Thaler, Daler, Daalder or Tallero

## It's Still—in Effect—a Silver Dollar

WHAT IS more fascinating than money? And, concerning silver dollars, the oldest was struck in 1486, the others having been minted during the last five centuries by 173 different countries or political subdivisions.

It is only since 1486 that silver has been used for the coinage of money of dollar size. For some 20 centuries, however, the metal was used for small coins. In 1486 the first dollar, or thaler, was struck in the Tyrol. One of these coins—now extremely rare — is owned by the First National City Bank of New York.

In countries with Germanic languages, the word thaler is still used to designate such coins. But thaler has become dollar in the United States. It is daler in the Scandinavian countries; daalder in The Netherlands; tallero in Italy; and tael in some Asiatic countries.

In other countries the similarity of the name does not exist; i.e., crown in England; peso in Spain ("pieces of eight" from the fact that it was a piece of 8 reales); and ruble in Russia.

These dollar-size pieces are per-

haps the most artistic of all coins. The size lends itself to intricate designs and engraving. And the portraying of rulers and other important personages is encouraged by the nature and use of the coins.

Men of the Massachusetts colony were the first to attempt their own coinage in British America. In 1652 a mint was opened in Boston where the pine tree shilling—so named because it bore the impression of a pine tree — was minted. Sixpence and threepence pieces were also products of this mint. The mint was closed by the English government in 1686.

The "Dollar of our Daddies", dated 1859, was a name applied to the silver dollar during the agitation for free silver coinage.

The "Peace Dollar", issued in 1921, commemorated the international arms parley then in progress.

The collection of coins as a hobby has been in vogue for centuries—probably from the time the first coin was struck centuries ago. Coin collectors (among whom was the late President Franklin D. Roosevelt), or numismatists, have brought together coins of great rarity and

value — single coins now being worth, in some cases, thousands of dollars.

—First National City Bank of New York

### MINNEAPOLIS GAS COMPANY

739 Marquette Avenue  
Minneapolis 2, Minnesota

#### Common Stock Dividend

The Board of Directors of Minneapolis Gas Company, at a meeting held on April 15, 1959, declared a dividend of 37 1/2 cents per share payable in cash on May 11, 1959, to common stockholders of record as of the close of business April 27, 1959.

G. T. MULLIN, President

### AIR REDUCTION

Company Incorporated



168th CONSECUTIVE

#### COMMON STOCK DIVIDEND

The Board of Directors has declared a regular quarterly dividend of 62 1/2¢ per share on the Common Stock of the Company, payable on June 5, 1959 to holders of record on May 18, 1959, and the thirtieth regular quarterly dividend of \$1.125 per share on the 4.50% Cumulative Preferred Stock, 1951 Series, of the Company, payable on June 5, 1959 to holders of record on May 18, 1959.

April 22, 1959

T. S. O'BRIEN, Secretary

### STANDARD BRANDS

Incorporated

#### COMMON STOCK DIVIDEND

The Board of Directors declared a quarterly dividend of 65¢ per share payable June 15th to stockholders of record on May 15, 1959.

#### PREFERRED STOCK DIVIDEND

The Board also declared a dividend of 87 1/2¢ per share payable June 15th to stockholders of record on June 1, 1959.

Joseph H. Hoyt  
Treasurer

April 23, 1959



### OUTBOARD MARINE CORPORATION

#### DIVIDEND NOTICE

A cash dividend of twenty cents (20¢) per share on the Common Stock of the Company has been declared by the Board of Directors, payable May 25, 1959, to stockholders of record May 7, 1959.

R. F. WALLACE,  
Assistant Secretary

National  
Distillers  
and  
Chemical  
Corporation



#### DIVIDEND NOTICE

The Board of Directors has declared a quarterly dividend of 25¢ per share on the outstanding Common Stock, payable on June 1, 1959, to stockholders of record on May 11, 1959. The transfer books will not close.

PAUL C. JAMESON

April 23, 1959.

Treasurer



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### SOUTHERN NATURAL GAS COMPANY

Birmingham, Alabama

#### Common Stock Dividend No. 81

A regular quarterly dividend of 50 cents per share has been declared on the Common Stock of Southern Natural Gas Company, payable June 12, 1959 to stockholders of record at the close of business on May 29, 1959.

H. D. McHENRY,  
Vice President and Secretary.

Dated: April 25, 1959.

### Dividend Notice



### AMERICAN & FOREIGN POWER COMPANY INC.

100 CHURCH STREET, NEW YORK 7, N. Y.

The Board of Directors of the Company, at a meeting held this day, declared a quarterly dividend of 25 cents per share on the Common Stock for payment June 10, 1959 to shareholders of record at the close of business May 11, 1959.

H. W. BALGOOYEN,  
Executive Vice President  
and Secretary

April 30, 1959.

## IBM

177TH CONSECUTIVE  
QUARTERLY DIVIDEND

The Board of Directors of International Business Machines Corporation has today declared a quarterly cash dividend of \$.50 per share, payable June 10, 1959, to stockholders of record at the close of business on May 27, 1959.

C. V. BOULTON,  
Treasurer

590 Madison Avenue  
New York 22, N. Y.  
April 28, 1959

## IBM®

INTERNATIONAL BUSINESS MACHINES CORP.

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CURVED PLATE OF PPG Teleglas® is shown ready to be laminated to the face of a standard TV picture tube. The laminating agent used is PPG Selectron® polyester resin. The diagram shows how the new safety tube allows set manufacturers to reduce cabinet depth.

## PPG develops space-saving face plate for growing television industry

PPG research has developed a new technique for making better picture tubes that cuts as much as four inches off present cabinet depth. Tube makers can now laminate improved PPG Teleglas directly to the tube face by the use of PPG Selectron resin. In addition to making a more compact, lighter set, the Teleglas lamination increases brightness by 9%, reduces glare, and provides freedom from objectionable reflections. Several major set and tube manufacturers are studying

this new PPG development and experimenting with pilot plant production.

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